

Cross-Modal Manifestations of Metaphor: **The Many Ways Conceptual Metaphor is Present in American Sign Language & Other Relevant Questions for the Project of Cognitive Semantics**

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0. Introduction

This thesis is written from a perspective of Cognitive Linguistics.* I accept the following claims of Cognitive Linguistics, briefly stated: Linguistic inquiry seeking to answer analytical questions regarding all phenomena pertaining to language should take its lead from Cognitive Science, that is, from what cognitive psychology, philosophy, neurobiology and other fields tell us about human cognition. Thorough linguistic analysis offers accounts of linguistic phenomena and language practice that are plausible and consistent with our real, everyday use, understanding and experience of language. Language is not an autonomous cognitive faculty; "the representation of linguistic knowledge is essentially the same as the representation of other conceptual structures, and ...the processes in which that knowledge is used are not fundamentally different from cognitive abilities that human beings use outside of language" (Croft & Cruse, 2004: 2). Cognitive processes that are used in language but are not specific to language include "principles of human categorization; pragmatic and interactional principles; and functional principles in general, such as iconicity and economy" (International Cognitive Linguistics Association website, www.cognitivelinguistics.org). Grammar is conceptualization; syntactic, phonological and morphological representations are all basically conceptual (Croft & Cruse, 2004: 2). Grammatical constructions are semantically and functionally motivated, and relationships between these constructions are based on both form and meaning (Lakoff, 1988: 122). Cognitive Semantics rejects the tenets of traditional, truth-conditional semantics, according to which meaning is based on reference and truth, where truth is equivalence between symbolic statements and states of affairs of the world as it 'objectively' is and where there is an "objectively correct" (Lakoff, 1988) way to achieve reference through associating linguistic symbols

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with entities in the world. Rather, truth and reference are dependent upon meaning and understanding; meaning is constructed according to cognitive construals or conceptualizations of experience. Various cognitive structures, schemas, and models are at play in our cognitive (spatial, categorical, etc.) understanding of our experiences and also in our conceptualizing of these experiences for linguistic communication.

The ideas listed above are not new; Cognitive Linguistics as an established field is more than twenty-five years old. There is now a voluminous international literature pertaining to this research. It is not within the scope of this thesis to explicate or give evidence for all of the preliminary statements in the previous paragraph. Interested readers are directed to Lakoff, 1987 and Langacker, 1987 for the broadest basic accounts; see also Talmy, 1978 & 1985; Kay, 1979 & 1983; Lakoff & Johnson, 1980; Fillmore, 1984; Fauconnier, 1985; Johnson, 1987; Lakoff, 1988; Langacker, 1995 & 1998; Taylor, 1995 & 2002, Ungerer & Schmidt, 1996; Croft & Cruse, 2004.

As the discussions in this thesis demonstrate, the notions of *image-schemas* and of *cross-conceptual domain mappings*, notions that form the basis of nearly all cognitive theories of metaphor, are crucial to the claims of Cognitive Semantics. These basic structures and processes can be seen in many different cognitive theories of meaning. As Lakoff presents these phenomena,

"Image-schematic concepts and basic-level concepts for physical objects, actions, and states are understood directly in terms of the structuring of experience. Very general innate imaginative capacities (for schematization, categorization, metaphor, metonymy, etc) characterize abstract concepts by linking them to image-schematic and basic-level concepts" (Lakoff, 1988: 150).

Metaphor in particular is a creative (in the fullest sense of the word) cognitive capacity that has received much attention in the research and literature of this field. A main goal of this thesis is to review, put to use, and comment upon various Cognitive approaches to metaphor. The differences between the accounts of various linguists/theorists are at times subtle, reflecting a difference in priority more than a radical discrepancy between models. Depending upon one's broader picture of Cognitive Semantics, however, the choice of one particular analysis of conceptual metaphor over another has implications for the rest of the theory of meaning.¹

Cognitive linguists have in recent years been paying much attention to American Sign Language, and linguists specializing in ASL have recently been making much use of Cognitive Linguistic theories and tenets. Sarah Taub, an Assistant Professor in the

¹ Collectively, Cognitive approaches to metaphor have provided useful commentary on ongoing issues in lexical semantics, including idiomatic 'irregularities' of statement meaning, polysemy (often vs. homonymy), puzzles over the exact nature of a 'concept', and processes by which linguistic expressions and linguistic reference are produced and understood.

Department of ASL, Linguistics, and Interpretation at Gallaudet University explains the appeal of this recent research: "A vast array of concepts are linked by metaphor to concrete concepts; a great deal of meaning can therefore be expressed by visual images of concrete objects and actions. Metaphorical signs can be taken as evidence for conceptual connections between pairs of domains of thought" (Taub, 2001: 4). Just as ASL can be a source of evidence for cognitive theories of metaphor, so can these theories shed light on some of the mysteries of grammatical processes in ASL. Karen Emmorey of the Salk Institute for Biological Studies writes, "Through metaphorical mapping, signers can extend the use of classifier constructions and signing space to describe abstract concepts and relations" (Emmorey, 2002: 114). I join this trend here, as I seek to better understand both the structure of American Sign Language and the cognitive processes of metaphor through by taking insights from each field and bringing them to the other.

In discussing ASL and in discussing metaphor, I spend a fair amount of time in this thesis discussing iconicity. The purpose of discussing iconicity is not to make a historical or cultural or etymological argument about the origin of the signs of ASL. The point is, rather, to attempt to understand better the connections between the ways we as cognitive creatures conceive of the world and the ways in which we use language to communicate about the world. Iconicity is a phenomenon that is based on resemblance, or salient highlighting of certain elements of identity in two juxtaposed entities. To represent something iconically is therefore to represent something in a way that already makes basic sense to us.

As stated above, Cognitive Linguistics deems iconicity a functional principle that explains the relation of language structure to things outside of language. ASL is a system in which only one-third of the symbols are arbitrary (Anderson, 1998: 23). Furthermore, there is widespread existence of form-meaning pairs in ASL and of lexical families related by such connections. According to the basic principles of Cognitive Linguistics, "Linguistic structures serve the function of expressing meanings and hence the mappings between meaning and form are a prime subject of linguistic analysis. Linguistic forms, in this view, are closely linked to the semantic structures they are designed to express. Semantic structures of all meaningful linguistic units can and should be investigated" (ICLA website, www.cognitivelinguistics.org).

As §1.2 takes pains to show, ASL is possibly the ideal candidate for this kind of analysis. The primary purpose of attempting to explain the role of iconicity in ASL signs, however, is ultimately to clarify the role of metaphor in this and in all languages.

The question I seek to answer, or perhaps simply formulate accurately, is how metaphors motivate, facilitate, and function in American Sign Language. For example, the discussion of iconicity, which is a phenomenon of schematic *similarity* and *not* of

identity, brings us to a discussion of idioms, expressions whose literal readings are lexically rejected in favor of figurative ones. Again, then, an interpretative, abstracting step is taken in linking form and meaning. As I'll demonstrate, explaining the form-and-meaning connections of figurative expressions in ASL, whether novel or conventional, requires a complex account of the interaction of cognitive schemas and processes. The goal I hope to achieve here is not simply cross-modal proof of the conceptual theory of metaphor, but also a helpful, refining critique of this theory vis-à-vis the paradoxes that arise regarding the *differences* of how these cognitive devices manifest themselves in signed and spoken languages.

The thesis proceeds in the following manner. §I is a literature review in which I explain Lakoff and Johnson's leading theory of conceptual or experiential metaphor (§I.1.1). Other current theories gaining support and attention that rely on or somehow integrate this model will also be explicated (§I.1.2). It is important to have some understanding of these models before getting into a discussion of ASL, since the most current writing by ASL linguists on conceptual metaphor in ASL adopts these models almost entirely and almost exclusively. I also point out, however, other, non-Lakoffian Cognitive theories of conceptual metaphor that exist and deserve the attention of linguists engaged in a Cognitive study of ASL (§I.1.3). I then turn in §I.2 to current accounts of metaphor in ASL, where iconicity and other structural factors make a quick, clean analysis unlikely. This review of ASL-specific literature segues into a pilot study; in §II.1 I try my hand at classifying some typical expressions for linguistic or communicative action in ASL, in response to a study of English expressions that uses Lakoff & Johnson's method. Finally, in §II.2, I offer what insights I can and very briefly try to point to what an analysis of ASL might look like in the hands of other Cognitive linguists and other Cognitive models of meaning.

I. Literature Review

1. Conceptual Metaphor

1.0 For the past twenty plus years, more or less ever since Lakoff & Johnson's *Metaphors We Live By* (1980), Cognitive Linguistics has paid much attention to conceptual accounts of the phenomenon of metaphor, particularly conventionalized metaphor. Individual linguists in the field take a variety of approaches to metaphor, which is jointly and alternately conceived of as a cognitive mapping across conceptual

domains, a construal process in which one concept or domain is profiled against another, a relatively basic and straightforward example of conceptual integration, and as the cognitive tool that exhaustively facilitates all abstract thought and reasoning. For Lakoff, Johnson, Grady, and to a certain extent Turner and Fauconnier, conceptual metaphor is a crucial aspect of any Cognitive account of meaning, as it demonstrates the ability to abstract from basic and embodied experiences and to integrate resulting entrenched schematic structures which can thus be extended to account for concrete, abstract, and all 'levels' of meaning. For others, namely Langacker, Taylor, Croft & Cruse, metaphor is an important but non-central example of a variety of dynamic construal processes by which meaning is cognitively constructed, framed and accessed. These latter-named approaches have not yet been widely or directly applied to studies of American Sign Language.

A foundational tenet accepted by all Cognitive theories of metaphor is that metaphor is primarily a phenomenon of cognition, wherein one concept or conceptual domain is understood (at least partially) in 'terms' of another, or against the background of another, or via structural and/or schematic similarities with another. On this view, expressions that have traditionally been referred to as 'metaphors' *are actually the linguistic manifestations of such cross-domain conceptualizations*. Furthermore, linguistic entities that are metaphorical expressions include (and, depending on your theory of conceptual metaphor, most frequently are) idiomatic usages, or 'dead' (conventionalized) metaphors, such as 'He is in danger', 'I'll see you at 5 o'clock', or 'That lecture went right over my head'.

The goal of the following discussion is to present the prominent model of conceptual metaphor: George Lakoff and Mark Johnson's Conceptual Metaphor Theory (henceforth CMT). I will also look at current theories of Cognitive Semantics that rely on, relate to or make extensive use of the Lakovian approach. CMT, Mental Space Theory, and Conceptual Integration or Blending Theory (BT) are the Cognitive Semantic models that have been taken up by certain linguists working with ASL, specifically, with metaphor and iconicity in ASL's processes of grammar and meaning construction. While Lakoff and Johnson have revised the initial formulation of CMT, few others have made significant use or paid significant attention to their newer model. On my view, the Integrated Theory of Primary Metaphor (Lakoff & Johnson, 1999) does not adequately address criticisms raised against CMT; these shortcomings will be mentioned in the following section. Anything approaching a conclusive evaluation of CMT and related and alternative models will be suspended, however, so that the applications of these theories to data in ASL might also have their say.

1.1 The Lakovian View: CMT

Image schemas

Before we can look head-on at the Lakovian theory of conceptual metaphor, it is necessary to review Mark Johnson's notion of image schemas, upon which Lakoff's account of metaphor importantly draws. In his *The Body in the Mind* (1987), Johnson defines *image schema* as "a dynamic pattern that functions somewhat like the abstract structure of an image, and thereby connect[s] up a vast range of different experiences that manifest this same recurring structure" (Johnson, 1987: 2). It is perhaps easier to say at first what image schemas are *not*: they are not pictures; they are not propositional in structure. Johnson tells us that they are "...not rich, concrete images or mental pictures, either. They are structures that organize our mental representations at a level more general and abstract than that at which we form particular mental images" (Johnson, 1987: 23-24). Image schemas, once established², are informed (fleshed out, made dynamically applicable for different situations of conceptualization) by encyclopaedic knowledge and may be entrenched by recurring basic physical experiences as well as by repeated patterns of cognitive use. Though they are likely to draw on visual perception and though they can be sketched in diagram form, they are too bare and too flexible in their structure to be mental 'pictures', per se. As Johnson describes them, "their most important feature is that they have a few basic elements or components that are related by definite structures, and yet they have a certain flexibility" (Johnson, 1987: 28). The notion of an image schema, or of the schematic structural content of a concept more generally, has been pervasively incorporated into many different cognitive accounts of meaning, as we shall see further on.

The functioning of image schemas is observable in everyday language. Many common words such as prepositions ('in', 'out', 'over'), simple nouns ('bed', 'bank', 'path'), or verbs ('run') are polysemous; we use them frequently in many different kinds of expressions and situations to mean many different things. The traditional view is that the relations among different meanings of a term are not systematic; image schemas, however, have offered accounts of these words that demonstrate strong root connections grounded primarily in the human experience of embodiment, of being physical creatures within a physical environment. For example, the *containment* image schema has been used in connecting the concrete and abstract uses of prepositions such as 'in' and 'out'. Johnson's idea of metaphor, developed with Lakoff, explains how these underlying

² See footnote #6 for a recent possible explanation of the establishment of image schemas.

meaning structures map out onto the multifaceted, abstract usages these words come to have.

Target Is Source

According to the basic tenets of the view of metaphor put forth by George Lakoff (1993) and by Lakoff and Mark Johnson (1980, 1987, 1999), most metaphors are not poetic, but conventional; metaphors are not in language, but in thought. A metaphor is a cross-domain conceptual mapping: a *source domain*, usually a very basic and primary conceptual domain, gets 'mapped' onto a *target domain*, usually a more abstract domain. The mapping is structured by a set of *ontological* and *epistemic* correspondences; in the examples that Lakoff has considered, the systematicity of these correspondences is quite compelling. An example frequently used to illustrate the theory is the *LOVE IS A JOURNEY* conceptual metaphor. The source domain in this case is journey; the target domain is love. The commonly used notation is a capitalized mnemonic for the set of correspondences, as shown above, with the target domain stated first and linked to the source domain via the copula or 'as': TARGET IS SOURCE/TARGET AS SOURCE.³ Lakoff lists the ontological correspondences of this conceptual metaphor as: the *LOVE-AS-JOURNEY* mapping; the lovers correspond to travelers; the love relationship corresponds to a vehicle; the lovers' common goals correspond to their common destinations on the journey; difficulties on the relationship correspond to impediments in travel (Lakoff, 1993). This list is not meant to be exhaustive; what it demonstrates is that the ontological elements (objects, relations, etc) of one domain correspond analogously and quite strongly to the ontological elements of the other domain. Furthermore, the ontological correspondences make possible an additional, epistemic mapping, in which the knowledge we have about journeys gets applied to, and is thus able to structure and interpret, the knowledge we have about love. According to Lakoff, the conceptual metaphor *LOVE IS A JOURNEY* gives rise to a great many *metaphorical expressions*, such as 'we've hit a dead-end street'; 'their marriage is on the rocks'; and many others, which on this view are seen not as individual metaphors themselves but as *manifestations of the same cross-domain conceptual mapping* (Lakoff, 1993). The mapping is a "fixed part of our conceptual system," says Lakoff, which "explains why new and

³ In this thesis I italicize conceptual metaphors to avoid confusion with ASL signs, which are conventionally represented in capital letters. Further conventions: *image schema*; METONOMY; SIGNS-IN-ASL; 'Cognitive' refers to a specific field of inquiry with specific people and specific commitments; 'cognitive' refers more generally to things/theories/processes/etc. pertaining to cognition.

imaginative uses of the mapping can be understood instantly, given the ontological correspondences and other knowledge about journeys" (Lakoff, 1993: 210).

While this example demonstrates a good deal of the theory, also fundamental are certain important distinctions and specifications Lakoff gives about how conceptual mappings work. These mappings are not to be seen as necessarily entire. Each mapping is a fixed pattern or structure that holds between the source domain and the target domain, thus "defin[ing] an open-ended class of potential correspondences across inference patterns" (Lakoff, 1993: 210). These inference patterns are based upon the "cognitive topologies", or image-schematic structures, of the domains. Mappings do not operate by copying whole source image-schematic structures onto target domains, but by facilitating and constraining conceptual correspondences within these structures. Lakoff explains this function by way of his "Invariance Principle," which states that "metaphorical mappings preserve the cognitive topology (that is, the image-schema structure) of the source domain, in a way consistent with the inherent structure of the target domain" (Lakoff, 1993: 215). According to the Invariance Principle, mappings are limited by the schematic structure inherent to each domain; elements in the source domain will only map onto the target domain so much as the target domain structure will allow. Correspondingly, Lakoff and Johnson state that most metaphorical expressions only seem to work 'one-way', as it were. On their view, such unidirectionality is predictable given that the purpose of cross-conceptual-domain thinking is to access abstract conceptual entities via experientially basic ones. The Invariance Principle explains how we manage to make only appropriate and only productive mappings (e.g. you can 'give someone a nudge', but you can't say that they'll 'have' a nudge an hour later; the *ACTIONS ARE TRANSFERS* metaphor accounts for the first expression, but the cognitive topology of actions prevents the 'nudge' from persisting over time).

Based on the above principles of the theory, Lakoff argues that conceptual metaphors play a central, and possibly primary, role in our abstract thinking and reasoning. He claims that the "event structure" metaphor (source: space/spatial domain; target: event) "shows that the most common abstract concepts – TIME, STATE, CHANGE, CAUSATION, ACTION, PURPOSE, and MEANS – are conceptualized via metaphor. Since such concepts are at the very center of our conceptual systems, the fact that they are conceptualized metaphorically shows that metaphor is central to ordinary

abstract thought" (Lakoff, 1993: 222).⁴ Furthermore, the phenomenon of "inheritance hierarchies", where one metaphor, such as *LOVE IS A JOURNEY*, inherits the set of correspondences of another metaphor, *LIFE IS A JOURNEY*, allows for many generalizations that facilitate reasoning (Lakoff, 1993).⁵ Metaphorical mappings are crucial for reasoning because of the asymmetry or conceptual distance perceived between basic experiences and abstract thought. On Lakoff's view, not all concepts are equal, which is to say, some image schemas are more skeletal in structure than others, or less productive on their own. This is the case regarding the image schematic structures of target domains, which are less experientially salient or embodied, and which thus depend on mappings from source domains for conceptualization at a propositional level. Lakoff thus puts metaphor in a very central and crucial place in regards to our everyday, abstract reasoning. As I'll discuss in much more detail in §1.2, Taub (2001) and Wilcox (2000, 2004) rely almost exclusively on CMT in their analysis of metaphor and of meaningful morpho-phonemic parameters in ASL.

Problems with Conceptual Metaphor Theory

This early formulation of Conceptual Metaphor Theory suffers from certain, almost immediately obvious contradictions and conundrums, as have been pointed out by several cognitive linguists and psychologists (Murphy, 1997; Taylor, 2003; Croft & Cruse, 2004). These issues include the potentially conflicting data of multiple metaphors; no clear hierarchy or theoretical distinction between conceptual metaphors and their mnemonics or instantiations, metaphorical mappings, domains, image schemas and metaphorical expressions; a vague presentation of what metaphorical or cross-mapping representation actually is, cognitively speaking; and a lack of non-linguistic data. For example, in his 1997 article "THEORIES ARE BUILDINGS Revisited", Grady argued for the decomposition of some of Lakoff and Johnson's conceptual metaphors into more basic, or *primary*, metaphors, which could then be compounded and so more precisely and predictably generate the metaphorical expressions found in the original data (and rule out contradictory metaphors or metaphors that would not make sense in

⁴ According to Lakoff, the fact that we use expressions like 'We boxed him into a corner', 'We've covered lots of ground', 'He is drifting aimlessly', 'Things are going against me these days', etc, shows that we conceptualize the above concepts in terms of space, and that as this is a cross-domain conceptualization, that we conceptualize these concepts metaphorically.

⁵ As *LIFE* is a more general or all-encompassing abstract conceptual domain than *LOVE*, the epistemic and ontological correspondences of conceptual metaphors in which *LOVE* is a target domain will be a subset of those correspondences in conceptual metaphors in which *LIFE* is a target domain. As your life might or might not be 'going well' (*LIFE IS A JOURNEY*), so your romantic relationship might or might not be 'going well' (*LOVE IS A JOURNEY*), and so things at work might or might not be 'going well' (*A CAREER IS A JOURNEY*).

a conventional way). This idea was later adopted by Lakoff and Johnson as the backbone of their Integrated Theory of Primary Metaphor⁶ (1999).

Perhaps the most problematic inconsistency concerns the Invariance Principle. Briefly, this principle holds that the inherent schematic structure of the target domain constrains which source domains can get mapped onto it and how much of or which elements of the source domains can get mapped. As Turner sets out:

“In metaphoric mapping, for those components of the source and target domains determined to be involved in the mapping, preserve the image-schematic structure of the target, and import as much image-schematic structure from the source as is consistent with that preservation” (1993: 292).

A contradiction exists between this principle and the theory's claim that certain target domains can only be grasped via metaphor and the structuring influence of the source domain. Murphy writes, “the skeleton [basic schematic structure of the target domain] is a direct representation [a pre-existing non-metaphoric cognitive structure], and so to the degree that it is involved in conceptual organization, the concept is not organized metaphorically” (Murphy, 1997: 187). Unless Lakoff and Johnson concede that the skeleton is a direct representation, they cannot rule out empirically incorrect inferences

⁶ This model integrates four theories which individually either give evidence for or presuppose conceptual metaphor theory; collectively the theories empower Lakoff to make stronger claims about the implications of conceptual metaphor. The first theory that is integrated is Christopher Johnson's *theory of conflation*, which states that young children go through a developmental phase during which associations are “automatically built up” between domains of subjective experiences and sensorimotor experiences (Lakoff & Johnson, 1999: 46). For example, an infant's subjective experience of affection and intimacy is associated with its sensory experience of warmth and physical closeness. Also integrated in the Integrated Theory of Primary Metaphor is Joseph Grady's *theory of primary metaphor*, which was developed in response to mapping inconsistencies that result from an unspecified hierarchy of metaphor. “Each primary metaphor has a minimal structure and arises naturally, automatically, and unconsciously through everyday experience by means of conflation, during which cross-domain associations are formed” (Lakoff & Johnson, 1999: 46). Narayanan's *neural theory of metaphor* is the third integrated theory and states that as cross-domain associations are made in childhood, the corresponding neural regions are simultaneously activated, resulting in “permanent neural connections being made across the neural networks that define conceptual domains” (Lakoff & Johnson, 1999:46). Finally we have Fauconnier and Turner's *theory of conceptual blending*, which will be discussed in further detail in its own section below. Lakoff and Johnson employ this theory to argue for the ability to make new, conventional and non-conventional inferences across multiple distinct domains. Conventional blends facilitate the compounding of primary metaphors into complex metaphors. The essential feature of the model that emerges from the integration of these theories is a bolder claim of determinism for Lakoff and Johnson: throughout *Philosophy in the Flesh*, they emphasize not only that human thought and speech is structured by conceptual metaphor, but that there can be no other explanation or course for our thinking, abstract reasoning, and communicating.

about the target domain⁷, since then the Invariance Principle cannot hold; the target domain cannot constrain what gets mapped onto it. But if they concede this level of direct representation, they come very close to maintaining Murphy's own argument of metaphor based on structural similarity (see below), rather than one domain *necessarily* 'filling in' and shaping the concept of the other. If the target domain has no independent structure before the mapping takes place, then it is very difficult to explain how the connection is motivated and how it works properly. Murphy therefore not only raises concern regarding the paradoxical nature of the Invariance Principle but also points to the possibility of pre-existing or non-metaphorically represented schematic structure of the so-called 'target' domain. In so doing, Murphy identifies the need for a more clearly articulated model of metaphoric representation, and perhaps of conceptual structure more generally.

1.2 Extending Conceptual Metaphor Theory: Mental Spaces and Blends

Fauconnier's Mental Spaces

Fauconnier foreshadows and uses notions of schemas and domains closely tied to those of Conceptual Metaphor Theory to account not so much for the motivation of our language generally or our more basic conceptual understandings, but for the way meaning is constructed as we use these conceptualizations in discourse. Fauconnier's theory of mental spaces (1985, 1997) draws on the idea of conceptual mapping pioneered in CMT, while focusing on higher-level cross-conceptual (or multi-domain) meaning constructions that take place during discourse. According to this theory, meaning is constructed as a result of various mappings, the notions of which are similar to if slightly more specified than the basic idea of mapping explicated by Lakoff and Johnson. These mappings "build and link *mental spaces*" which "are partial structures that proliferate when we think and talk, allowing a fine-grained partitioning of our discourse and knowledge structures" (Fauconnier, 1997: 11). Fauconnier claims that *mental-space mappings*, which connect the mental spaces that are established in a given discourse, form an organized and conceptually parsed network that can account for certain philosophically challenging phenomena such as counterfactuals, hypotheticals, referential opacity, and indirect discourse. Fauconnier thus argues that language "guides meaning construction directly in context" (Fauconnier, 1997: 17). As a discourse unfolds, mental spaces and the connections between them are set up as functions of

⁷ For example, 'He made me so mad I just boiled over, and then we used me to make tea' would not be a useful or appropriate expression of the *ANGER IS PRESSURE/IS HEATED LIQUID IN A CONTAINER* metaphor.

certain factors: the linguistic expressions that come into the discourse, the context of the discourse, and background information already working to structure cognitive configurations (Fauconnier, 1997).

According to mental space theory, a language expression has a *meaning potential* rather than a meaning; it gets its meaning from its context within a complete discourse. Discourse unfolds as a succession of cognitive configurations (mental spaces), where each configuration "gives rise to the next, under pressure from context and grammar" (Fauconnier, 1997: 38). Grammatical and pragmatic information trigger the formation of new spaces and elaborate upon old ones. The configurations *partition* information given by the discourse (and the context of the discourse) into different domains (spaces). New spaces are set up in relation to existing, 'parent' spaces which are in focus at the time of the creation of the new, related space. At any point in the discourse, the following configurations (at minimum) exist: a Base Space, which is "a starting point for the construction to which it is always possible to return"; a Focus, which is the space currently in attention; and a Viewpoint (which, like the Focus, can shift), which is "the space from which others are accessed and structured or set up" (Fauconnier, 1997: 49). These configurations may overlap; for example, early on in a discourse or in a very simple discourse (or possibly an isolated sentence), one mental space may serve as Base Space, Viewpoint and Focus.

While mental spaces are generated and shaped to a degree by pragmatic and linguistic cues, these signals underdetermine the extent and detail of salient information that each space will have and sometimes the nature of the connections between the spaces as well. Fauconnier therefore posits a good deal of help from pre-existing *frames*, *cognitive models*, and background information in the long-term memory in structuring the mental spaces internally. Both CMT and the theory of mental spaces pave the way for Blending Theory, discussed below. The theory of mental spaces has had much influence on recent accounts of reference and spatial metaphor in ASL; Liddell in particular embellishes upon Fauconnier's model in his "real space" theory (2003), which offers a direct model of communication as linguistic encoding and decoding of spatially represented referents in a given discourse situation.

Blending Theory: Form, Concepts, Mappings and Mental Spaces Mix it up

Conceptual blending, known also as blending, conceptual integration, and the many space model, presents a theory of on-line meaning construction found in both linguistic and non-linguistic behavior (Coulson & Oakley, 2000: 175, 184). This theory is built around the idea of a *conceptual integration network*, "an array of mental spaces in

which the processes of conceptual blending unfold" (Coulson & Oakley, 2000: 178). Though the number of mental spaces in a conceptual integration network is not necessarily fixed, the paradigmatic model posits four mental spaces: two *input* spaces (though there may be more), a bit like two source domains from conceptual metaphor theory, each having independent and 'complete' cognitive structure; and two 'middle' spaces: a *generic* space that contains a basic, skeletal schematic structure shared by all input spaces, and a *blended* space containing "selected aspects of structure from each input space, and frequently, emergent structure of its own" (Coulson & Oakley, 2000: 178). This four-space model is generally presented as distinct from the two-domain paradigm of conceptual metaphor theory; it is also worth noting that, unlike a sprawling and complicatedly connected network like the kind that unfolds during discourse according to mental space theory, this model is generally tighter, with focus remaining on the blended space. In one example, that of a computer 'desktop' interface, the blended space integrates ideas of desktop work (such as organizing and filing) with computer commands, yet has a unique emergent structure involving such things as dragging and clicking with a mouse. In this case, "a felicitous blend has been achieved that naturally inherits, in partial fashion, the right conceptual structure from both input domains, then cultivates it into a fuller activity under pressure and constraints from reality and from background knowledge" (Turner & Fauconnier, 1995: 188).

While many examples of blending deal solely with conceptual integration, Turner and Fauconnier also discuss formal blends, as well as the surprisingly detached relationship that typically exists between conceptual integration and formal or linguistic expression. One important finding is that "formal expression in language is a way of prompting hearer and reader to assemble and develop conceptual constructions, including blends; there is no encoding of concepts into words or decoding of words into concepts" (Turner & Fauconnier, 1995: 183). This on-line process of generating and integrating conceptual configurations diverges significantly from traditional notions of compositionality in core semantics and of morphological compounding. Turner and Fauconnier argue, with extended examples based on the expression 'dolphin-safe', that the meaning of compound nouns or otherwise combined terms is not built up by sticking separate concepts, each represented by its own word, together, but by instantly integrated and contextually informed reasoning. They critically point out, "the valuing of cases like 'brown cow' as central to semantics seems to derive less from their role in everyday language than from the fact that they have such strong defaults that they make the compositional explanation seem obvious" (Turner & Fauconnier, 1995: 191). The compelling alternative explanation given by BT is one of the stronger arguments offered

in support of the existence of conceptual integrating processes. In answer to the question of how open compounds such as 'land yacht' or 'jail bait' manifest conceptual integration, Turner and Fauconnier state that "in general, the formal unit names two elements [hence called *named elements*] in two different spaces and directs the understander to find the rest" (Turner & Fauconnier, 1995: 191). We here observe linguistic underdetermination of what is taking place at a cognitive level in the construction and comprehension of these conceptual combinations. Perhaps because of the discrepancy between the intricate detail of the conceptual integration and the minimal cues of the formal expressions, it does not usually occur to interpreters to unpack the linguistic form by assuming that the named elements are conceptual counterparts (Turner & Fauconnier, 1995). Rather, as Turner and Fauconnier argue, cultural and contextual information plays a large role in grasping the unique meaning of these expressions. Cases of compounding and parameter variation demonstrate similar systematic underdetermination of form in ASL; here, as I shall point out (§I.2), a complex combination of conceptual, cultural (experiential), and contextual factors motivate specific interpretations in given instances.

Grady et al. (1999) offer further specifications of the differences between the theories of conceptual metaphor, conceptual integration, and mental spaces, as well as discuss several relevant examples of blending. A major distinction is made between the permanency or 'entrenchment' present in conceptual metaphors and the short-term 'on-line' nature of blends. For instance, "a mental space is a short-term construct informed by the more general and more stable knowledge structures associated with a particular domain [as posited in CMT]" (Grady et al, 1999: 102).⁸ In BT, the blended space has material projected onto it from both neutral spaces, which in this article are presented as akin to the source and target domains of CMT. As independent pre-existing structure is posited in *both* input spaces in BT, however, the comparison is not precise. At any rate, in CMT projection is unidirectional. In BT, therefore, a blended space is characterized by its own unique *emergent* structure that arises from the selective projections of the input spaces. This unique emergent structure allows the blended space to account for the role of differences and contradictions in cross-conceptual reasoning, which is an important difference between BT and CMT. For example, it is the *contrasts* between surgeons and butchers that make the implication of incompetence in the expression 'The surgeon was a butcher' sensical (Grady et al, 1999: 104). Blends thus presented are more flexible,

⁸ However, as Gibbs has hypothesized, the supposedly 'stable' nature of the structure of domains may be equally a result of on-line processing and abstraction from physical, embodied experiences, depending on what the 'true' nature of a 'concept' turns out to be (Gibbs, 1996).

selective, and specifically informative than conventionalized conceptual metaphors; these characteristics make BT a potentially attractive model for an analysis of meaning in ASL, which needs to handle holistically the interaction of both formal and conceptual elements. Furthermore, usually only certain connections within a given conceptual integration network are actually metaphoric, as opposed to structurally similar or related hypothetically or counterfactually (Grady et al, 1999: 113); as I will argue in §II, not every motivated morpho-phonemic structure in ASL is the result of metaphor, though they may frequently require some process of conceptual integration.

1.3 Alternative Cognitive Approaches to Conceptual Metaphor

Conceptual Metaphor in Langacker's Cognitive Grammar (Preview: Image Schemas and ASL's Own Schematic Structures)

Briefly put, Langacker's cognitive grammar posits only semantic units, phonological units, and symbolic units; these three units are all that's needed for a full linguistic analysis of a language (Langacker, 1995). While Langacker's approach to linguistics is largely concerned with providing a cognitive answer to syntax, he stays true to his field; an account of meaning makes up a third (or two, or three, depending on your view) of his system. For Langacker, semantics is best understood as a process (or a set of many processes) of *construal*, which he describes as "our manifest capacity for conceptualizing the same situation in alternate ways" (Langacker, 1998: 4). Entities and situations are conceived at varying levels of specificity and detail; to identify the frame in which one is thinking when one expresses something linguistically is to explain the meaning of the utterance. On Langacker's view, then, "meaning is thus a function of both conceptual 'content' and how that content is construed" (Langacker, 1998: 4). One prevalent process of construal, according to Langacker, is conceptualizing one entity or event against the background of another. Examples of this framing or construal process include categorization, perspective, prominence (a cognitive phenomena under which figure/ground distinctions, profiling, and trajectory/landmark relationships are subsumed), and metaphor (Langacker, 1995). For Langacker, then, metaphor is not particularly singled out or centrally placed in a cognitive theory of meaning; rather, it is one of several methods by which we use one event, circumstance, thing, idea or conceptual field to frame another. This in turn is only one of multiple possible processes of construal.

Yet Langacker's idea of metaphor is not completely at odds with the Lakovian view; in fact, Lakoff makes use of Langacker's notions of landmark and trajectory in

describing the cognitive topology of a word's (particularly a preposition's) schematic structure. The cognitive topology of such a structure is like a map of the possible trajectory/landmark profile combinations, which connect schematically the uses of a polysemous lexical item. The terms "trajectory" and "landmark" come from Space Grammar and have been respectively defined as "the thing bearing the relation [in question, e.g. *over*] and the thing being borne the relation to" although they correspond to more familiar notions of *figure* and *ground* (Brugman 1988: 13). These schematic construal devices are nearly directly represented in ASL's expression of 'across', as we shall see further on (§1.2.1).

Taylor on Conceptual Metaphor
(Preview: 'Many Image Schemas in a Single Sign')

John R. Taylor, who has done much work in Cognitive Linguistics, particularly pertaining to prototypicality and categorization, reviews in his recent textbook *Cognitive Grammar* (2002) the Lakovian theory of metaphor and presents some alternatives to this model. While Taylor appreciates Lakoff's Conceptual Metaphor Theory generally, he finds several critical flaws in it, many of which have been discussed above. He criticizes the internal contradiction of the Invariance Principle and notes the problem of conflicting metaphors. Furthermore, he cites counterexamples of 'fixed' or highly irregular metaphors such as 'spill the beans', which don't seem to belong to a family of metaphorical expressions which could be connected by a productive cross-domain mapping, and he points out that a poorly established hierarchy of schematicity leads to poorly formulated metaphors (Taylor, 2002). Yet Taylor takes particular umbrage at the central role in Cognitive Linguistics and especially in our abstract thought and reasoning that Lakoff gives to conceptual metaphor. Taylor rejects the claim that abstract thought is only possible because of the structuring influence of source domains on otherwise inaccessible target domains; he is thus quite critical of Lakoff and Johnson's recent 'integrated' model.

Taylor is hardly opposed to the idea of conceptual metaphor as a cognitively real phenomenon, however. As Taylor's entire system of cognitive grammar is based on ubiquitous schematicity, he welcomes conceptual metaphor (cross-domain mappings) as a cognitive structure which "is schematic for the metaphorical expressions which instantiate it" (Taylor, 2002: 493). He gives as examples the metaphorical expressions 'Christmas is approaching' and 'The holidays are not far away from us' as instances of the much-analyzed conceptual metaphor *FUTURE EVENTS MOVE TOWARDS US* (or more simply: *FUTURE IS AHEAD*). Yet Taylor is not convinced that the cognitive

processes by which conceptual metaphors arise are how Lakoff and Johnson say they are.

While Taylor presents several alternatives to their account, he primarily proposes that the source/target domain relationship as such is unnecessary. He writes, "The fact that a linguistic expression can be used of both an abstract and a concrete domain does not entail that the one is construed metaphorically in terms of the other. It is conceivable that both are structured in terms of a schematic conceptualization that abstracts what is common to the two domains" (Taylor, 2002: 519). This view is quite similar to that put forth by Langacker; indeed, Taylor cites Langacker's theory of 'abstract motion' as an example of a schematic understanding of a concept, such as change, could generate more "domain-specific conceptualizations" (ibid). He also points to examples of "metaphors without mapping" such as Glucksberg and Keysar (1993), who "claim that a metaphorically used word temporarily sets up a superordinate category which has, among its instances, both the 'literal' and 'metaphorical' senses of the word" (Taylor, 2002: 529). One could easily add Murphy's notion of "structural similarity," which holds that metaphorical expressions arise because of similarities in pre-existing conceptual structures between two domains (Murphy, 1997).

Murphy's view is indeed very close to Taylor's own position on conceptual metaphor. Taylor examines Johnson's idea of image schemas and more or less agrees upon "the status of image schemas as both schematic (i.e. domain independent) and experiential (based in bodily experience) concepts" (Taylor, 2002: 523). Taylor highlights an aspect of image schemas that is indeed stated by Johnson, though not drawn upon as explicitly as it might be in Conceptual Metaphor Theory: the domain-neutrality of image schemas, which are available, as it were, for the structuring of multiple conceptual domains, and which, as a result of their incredibly schematic, pre-propositional, experientially established nature, must surely recur in many different concepts and conceptual domains. And, we might add upon further inquiry, in different signs. Taylor's portrayal of image schematic structures is analogous to the interplay, and resultant lexical family groupings, of underspecified yet meaningful parameters in different signs in ASL.

Taylor argues further that metaphorical extensions of image schemas onto diversified metaphorical uses in expressions do not primarily operate by filling in missing structure in a target domain, but by realizing similarities or correspondences between two domains. He writes, "The similarities can themselves become the content of a more abstract representation that is schematic for both source and target" (Taylor, 2002: 522). While nuances and subtle differences can be pointed to between this

particular view and that of Langacker (and of Murphy), it is clear that Taylor's account of metaphor as one of several examples of concept-structuring relationships between cognitive schemata is in keeping with these other, 'non-Lakovian' accounts of meaning in Cognitive Linguistics. These notions of *bidirectional* mappings, or of mappings based on salient similarities, have not been taken up by linguists looking at metaphor in ASL, though, as we shall see, they seem particularly relevant to the project of discerning between iconicity, metaphorical-iconicity, and metaphor in the language.

Croft & Cruse: Dynamic Construals
(Preview: *Dynamic Tropic Interaction in ASL Signs*)

In their *Cognitive Linguistics* textbook (2004), Croft and Cruse present an approach to meaning in which meanings and structural relations that would normally be specified in the lexicon are in fact "construed 'on-line', in actual situations of use" (Croft & Cruse, 2004: 97). One implication of this view is that certain schematic cognitive structures are activated or accessed and manipulated afresh for at least most if not all meaning situations. Correspondingly, their theory has image schemas playing prevalent and diverse roles as mechanisms of various cognitive processes of construal used in both linguistic operations and other functions of cognition. Image schemas such as the *identity* schema (which Croft & Cruse posit), for example, are said to be used in a cognitive construal process of judgment/comparison. Metaphor, according to this approach, is a linguistic construal operation that, like categorization and figure/ground distinction, is an instance of the judgment/comparison construal process (Croft & Cruse, 2004).

While Croft and Cruse do use the terms *source domain* and *target domain* in their discussion of metaphor, their interpretation of the implication of the schematic structure of these domains is a bit different from other approaches reviewed thus far. They write, "The choice of metaphor to describe a situation in a particular domain construes the structure of that domain in a particular way depending on the metaphor chosen. For example, the metaphor in *stock market crash* construes the low level of the market as abnormal, the result of defective operation, whereas a high (or rising) market is normal" (Croft & Cruse, 2004: 55). This view implicitly posits significant pre-existing schematic structure in the target domain.

Croft and Cruse further separate their account of metaphor from others here discussed with the emphasis they place on novel metaphor. The lifeblood of CMT is conventional metaphors, yet Croft and Cruse argue that "all these established metaphors must have started life as novel ones", and that the phenomenon of novel metaphors more clearly displays the metaphorical mechanism of cross-domain

interaction (Croft & Cruse, 2004: 206). They introduce the term *open mapping* to characterize the dynamic nature of conceptual metaphors, in which “the correspondences between the domains do not form a closed set, and cannot be exhaustively listed” (Croft & Cruse, 2004: 213). The idea of an open mapping makes salient the on-line process by which metaphors construct/construe meaning in various linguistic situations; it also emphasizes the distinctness of a metaphorical expression versus a non-metaphorical one. On this view, novel metaphors reflect an underlying cross-domain conceptualization as much as and are as much a part of meaning construction as conventional metaphors. For Croft and Cruse, then, Blending Theory thus offers the best account yet of conceptual metaphor (though, according to Croft & Cruse, Blending Theory needs to acknowledge better the unlimited potential of cross-domain correspondences): an interaction between domains whereby the target domain is presented in a special and *emergent* way by the source domain for semantic accessing (Croft & Cruse, 2004). The emphasis that Croft and Cruse place on the idea of metaphorical expressions as novel linguistic *products* of a cognitively entrenched *process*, and also on *emergence* as an important, definitive outcome of metaphorical thinking, makes their approach worthy of the attention and study of linguists working with ASL, particularly those struggling to separate and sort out various figurative processes jointly at work in the structure and uses of ASL signs.

2. Conceptual Metaphor in American Sign Language

2.0 Having discussed the essential tenets and extensions of Conceptual Metaphor Theory, it is now possible to examine the applications of these theories to American Sign Language. Both ASL and English are unique and full languages in their own rights. CMT (and, indeed, most if not all semantic theories of Cognitive Linguistics) claims to explicate a primarily cognitive/conceptual, and so potentially pre-linguistic, phenomenon of cross-conceptual-domain framing. Metaphors are in thought; they are a *cognitive* phenomenon that is manifested linguistically. Manifestation of such cross-domain cognitive processes should thus be observable in ASL, as it is in English. As many linguists have recently found, this is indeed the case – almost too much so, it seems. Many sublexical entities of ASL seem to come heavy with undeniable if albeit sometimes vague semantic connotations. Many signs in ASL appear to be iconic, or composed of morpho-phonemic parameters that are iconic. Many of the signs in ASL

seem to demonstrate a productive and predictive semantic link between an experientially basic (and so visually and schematically (iconically) representable) form and an abstract concept. These observations have excited many linguists working both with ASL and with theories based on CMT; claims of metaphoricity and iconicity in the language are now becoming the trend, after years of scholars denying the role of iconicity in signed languages in order to further a common and an academic perception of signed languages as 'real' languages. Clear and accurate analysis of the operations of iconicity and metaphor in any language is complicated, however, and the richly communicative visual/gestural modality of ASL has perhaps rushed these analyses past the point of absolute clarity. Or perhaps the models that enjoy at least some success when handling spoken language data oversimplify issues specific to ASL. Or perhaps the models based on spoken languages oversimplify spoken language instances as well; several of these analyses are still in early stages of critique and are difficult to validate empirically. A comprehensive approach to conceptual metaphor that can identify, classify, and otherwise account for all instances – cross-linguistic, cross-cultural, and cross-modal – has not yet been articulated. At any rate, the following section discusses some prominent and current applications of CMT to ASL data.⁹

2.1 Basics of ASL Grammar and Structure

According to most current linguistic analyses of American Sign Language, signs are composed of five basic parameters: *handshape, orientation, location, movement,* and *nonmanual signals*. A sign's structure can thus be described in terms of sequential bundles

⁹ Perhaps this is as good a place as any to say something about the limitations of the preceding and proceeding analyses, regardless of the language to which they are applied. To a certain significant extent, claims about the existence of cognitive structures and the roles they play in language acquisition and use, in processes of grammar and of meaning, cannot be empirically validated. To a perhaps even greater extent, theories of metaphor or other phenomena frequently viewed as 'subjective' and 'imaginative' that claim to explain specific ways in which cognitive structures connect and build abstract and non-literal meanings in linguistic expressions are difficult to verify. This is not to suggest that linguists and philosophers working in this field lack rigorous methods and principles of analysis. Furthermore, Cognitive psychologists are paving the way towards an integration of empirical evidence into these theories. The interested reader is directed to the works of Raymond Gibbs (1996 et al.) and Alan Cienki (1998) on the psychological validity of image schemas and on the systematic cognitive and linguistic extensions of image schemas to abstract concepts, to William Croft (1998) on the spectrum of plausibility and commitment regarding theoretical discussions of mental representations, and to Karen Emmorey (2002) on neurobiological evidence for cognitive accounts of language ability in ASL. For present purposes, this thesis evaluates the analyses and arguments here discussed (and offers some of its own) in a spirit of agnosticism regarding methodological naturalism.

of articulatory features; these bundles are defined by the simultaneous production of at least the first four of these parameters. (See below for more on the sequential and segmental phonological structure of ASL.) A sign's *handshape* is the configuration of the hands in a given sign (or in a given part, or morpheme, of a sign). There is an established set of conventional handshapes that includes many configurations based on letters of the American Manual Alphabet or on manual numbers, as well as certain conventional variations on these configurations. The *orientation* of a sign is the direction (up, down, left, or right) that the palm is facing, usually at the start of the sign (if orientation changes). A sign's *location* is the place where the sign is signed, either on the body or near to or associated with some region of the body. Location is typically considered to be one of the more meaningful parameters, as it frequently adds semantic content to the sign. This will be discussed in further detail below.

The *movement* of a sign can be described in terms of manner of movement, direction of movement, quantity of movement, and complexity of movement (primary or secondary). One accepted way of analyzing a sign's phonological structure is by breaking it down into a series of Movement and Hold segments. A Movement segment describes an event in the sequential structure of the sign in which the hands are moving (i.e., in which parameters or features in the articulation bundle are transitioning), while a Hold segment describes an event in the sequential/temporal structure of a sign in which the hands are still, in a certain configuration, and possibly making contact with the body, i.e. "periods of time during which all aspects of the articulation bundle are in a steady state" (Valli & Lucas, 2000: 37). Movement is another parameter of sign structure that frequently adds important semantic information, such as the role that direction of movement plays in subject-verb agreement (see below), or the significance that repetition of movement has in terms of expressing the frequency of an action, or the count of a noun.

Finally, *nonmanual signals* give 'extra' information of the sort that would be conveyed by tone of voice (as well as facial expression) in spoken languages. The signer's body and facial expressions can systematically provide such intensional information through nonmanual signals, which are produced simultaneously with the manual sign. Puffed cheeks, for example, indicates that there are quite a lot of the noun you're talking about: BOOKS, signed with puffed cheeks, means 'a big bunch of books'.

The parameters of handshape and movement interact in interesting ways in the case of *classifiers* and *classifier predicates*. To sign the sentence, 'I watch the car go by', a signer would express 'car go by' by signing CAR and then switching to a vehicle classifier handshape and moving that handshape across the signing space (or possibly just using a

vehicle handshape and the movement of passing the signer, relying on context to fill in the specific type of vehicle being discussed). A classifier predicate is a motion or action verb that uses the movement and sometimes location and orientation parameters to express the motion or action and that takes a classifier handshape to denote the kind of object or noun that is doing or that is the recipient of the motion or action. The entire predicate 'the car go by' is expressed in one 'sign', or one linguistic unit (articulatory feature bundle) that is composed of handshape, orientation, location, and movement. Classifier handshapes are thus descriptive for the size and shape of an object that is moving, or acting in some way specified by the movement of the sign. Some examples of classifier handshapes are F (for a coin-shaped thing), B oriented downwards (flat surface, usually a table), hooked-V (animal).

When discussing ASL syntax, it is often said that ASL doesn't really have particular prepositions, since prepositional relationships are expressed in context, by way of a physical, spatial, and visual representation of a relationship between two physically/spatially/visually established referents. To sign the phrase 'across the street', for example, a signer would set up a street in signing space, and then the dominant hand would demonstrate the relevant classifier handshape (a 1 for a person walking, for example) moving *across* the street. This signed phrase resembles with incredible closeness the trajectory/landmark schema diagrams used in various cognitive semantic accounts of polysemous prepositions, particularly Lakoff & Brugman's work on *over*. In ASL's expression of *across*, the trajectory is the movement across the spatially represented STREET, which is the landmark. Further investigation into the grammar of ASL prepositions in relation to the cognitive grammatical notions of landmark and trajectory could prove quite interesting and productive, perhaps pointing to the advantages of a general construal-type analysis à la Langacker or Croft and Cruse. Furthermore, classifier handshapes and their movement predicates seem to operate very much along the lines that Cognitive linguists claim image schemas function in structuring and metaphorically relating the semantic components of lexical items.

As I'll return to in many of the subsequent discussions of iconicity and metaphor in ASL, a crucial characteristic of the structure of signs in American Sign Language is that these parameters frequently carry individual elements of meaning. The parameters then combine to form a single sign, the 'full' meaning of which is more often than not related to the smaller contributory units, if not a direct sum of semantic parts. For example, the sign IDEA consists of an I *handshape*, has an inward-facing *orientation*, is *located* at the forehead, and makes a single and outward and upward *movement* (Fig. 1). Although it is far from necessary that all, or even any, of these parameters carry

semantic information that adds or corresponds to the meaning of the sign, in this case it would be easy to argue that the parameters do indeed contribute such content. The handshape can be seen as an initialization of the English word 'idea'; the orientation connotes a conceptualization of ideas as internal, at least initially; the location connotes mental activity or points to the physical region associated with mental activity; and the movement signifies the path an idea might travel once recognized and expressed. This is merely a subjective, common-sense and ad hoc analysis of the semantic unity or cohesion among the parameters of IDEA, yet the notion that these parameters carry relevant meaning and that the structure of the sign is thus semantically motivated seems intuitively plausible. Further in this section I look at models that seek to explain how parameters can individually schematize the conceptual structures they seem to connote, and how the grammar of ASL constantly uses iconicity and metaphor to facilitate the compositions of such schema into a linguistic form that is semantically rich and extendable.

For now we'll consider the morphological structure of one more example, the sign GIVE, almost all of the parameters of which are underspecified in citation form, i.e., filled in by usage context. The structure of the citation form of GIVE (Fig. 2) is fairly schematic: the sign is two-handed; the handshape is flat-O, which is a classifier for a small object; the orientation faces upwards; the location begins in neutral signing space, close to the signer's body; and the movement goes out from there to space in front of the signer, as the signer lowers his arms down and out, maintaining the classifier handshape. Yet the structure of GIVE in the signed/glossed expression HE GIVES THE DOCUMENT TO HER would be more like the following: the sign is probably one-handed; the handshape is B with a palm-upward orientation, which is the classifier handshape for objects that are the shape and size of a piece of paper; the initial location would be a position in signing space that has been established as standing for a referent of the current discourse; the movement would go across the signing space from this location to a different position in the signing space that had been established as referring to some referent (in this case, 'her'). GIVE is a transitive verb and thus demonstrates the process of subject-object agreement in certain ASL verbs; such agreement is typically achieved through directionality of movement and referential locations that are set up spatially. Many of the parameters of GIVE are therefore set in specific instances of use, and many of them contribute specific semantic information, such as who is giving to whom and what is being given, to the sign. Furthermore, the form of these parameters expresses fairly transparently (iconically) the information each carries.

2.2 Accounts of Meaning in ASL Morphology

Fernald & Napoli: Ion-morphs

Fernald and Napoli (2000) propose a formal device for handling the frequency in ASL at which meaning is found at the level of individual parameters and the resulting plethora of lexical families in the language. These devices are “ion-morphs”: “phonologically incomplete lexical items that bond with other compatible ion-morphs. These ion-morphs draw lexical items into ‘families’ of related signs” (Fernald & Napoli, 2000: 3). This account of meaningful morphological units in ASL recognizes and organizes semantically contentful *sublexical* items; it proposes a formal model into the grammar of the language. The model, as its goal is one of explaining how the morphological *rules* of ASL grammar *generate* semantically related items, makes no attempt to place iconicity within its system; it does not attempt to include conceptual contributions in its formalism, nor metaphorical explanations of abstract meaning relations in its account.

Lexical families are defined in this article as “groups of words with a common correspondence between phonological form and meaning” (Fernald & Napoli, 2000: 4). To borrow their very appropriate example of a lexical family of familial relations, the signs for MOTHER and FATHER differ only by one phonological parameter, location. As Fernald and Napoli point out, lexical families constitute a very significant portion of the lexicon in ASL; the alternation of parameters is an extremely productive and efficient way of building and organizing the lexicon for this language. The semantic richness of these sublexical elements demands a certain status in the lexicon that seems to be on par with that of mere morphemes, however; hence Fernald and Napoli’s model.

The most straightforward application of the ion-morph formalism is demonstrated with the “nuclear” (differing by only one parameter) lexical family made up by FAMILY/TEAM/CLASS/ASSOCIATION (Fig. 3) and others. The alternating parameter in this lexical family is handshape; in the ion-morph it will be represented as x , the set of variable handshapes that contribute the distinctness of meaning of the semantically related items in the lexical family. The movement, orientation, and location (‘Place of Articulation’, in Fernald & Napoli’s terms) of the signs in this family are shared and are stable. The ionmorph thus lists the fixed parameters and the variable, and then lists members in the variables set, in the following manner:

$$[x, M_a, O_a, POA_a] = \text{‘whole’ when } x \in \{HC_r, HC_l, HC_c, HC_a, \text{ etc}\}$$

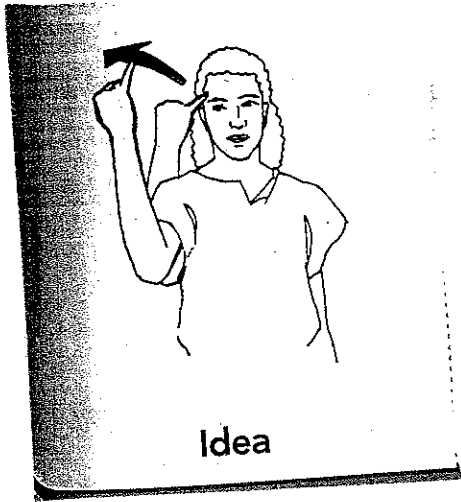


FIG. 1.

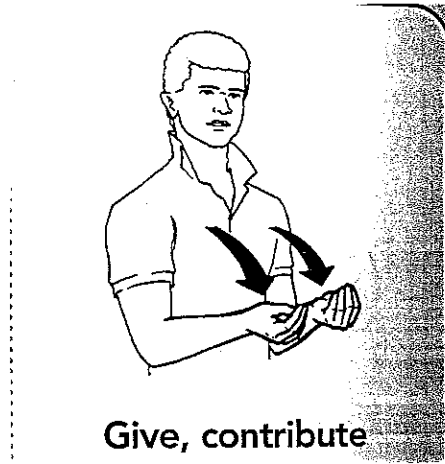
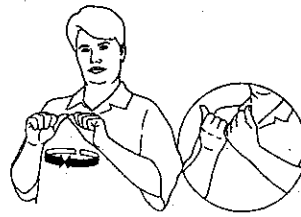


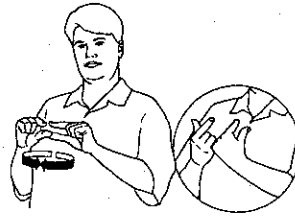
FIG. 2



Class



Association



Group

FIG. 3

Ion-morphs can also be formalized according to alternating parameter/meaning pairs:

- | | |
|---|--|
| a. $[HC_{f'} x] = \text{'family'}$ | when $x \in \{ [M_{a'} O_{a'} POA_a] \}$ |
| b. $[HC_{t'} x] = \text{'team'}$ | when $x \in \{ [M_{a'} O_{a'} POA_a] \}$ |
| c. $[HC_{c'} x] = \text{'class'}$ | when $x \in \{ [M_{a'} O_{a'} POA_a] \}$ |
| d. $[HC_{a'} x] = \text{'association'}$ | when $x \in \{ [M_{a'} O_{a'} POA_a] \}$ |

Ion-morphs consist of three parts: "a description of phonological form (a parameter group or groups along with any notes...), the meaning associated with the form, and a restriction on what other parameters the form-meaning pair can combine with" (Fernald & Napoli, 2000: 39). According to Fernald and Napoli's Unification Rule, ion-morphs combine only with other ion-morphs, and only with other ion-morphs that share with them a restrictive set, to form signs. This analysis is able to subsume the morphological units most frequently associated with meaning, classifiers, which can now be seen as "the same type of morphological form as any other single parameter that is uniquely shared by all the members of an extended lexical family" (Fernald & Napoli, 2000: 38). Certain alterations of movement, orientation, and location are allowed for in more complicated formalisms of ion-morphs in order to incorporate classifier predicates into this theory of lexical families. Fernald and Napoli convincingly demonstrate that all syntactic categories of signs in ASL can be grouped in lexical families that are related by ion-morph structures. The posited formal model of ion-morphs offers a systematic and relatively simple way to group lexical items in ASL into form-and-meaning-related families and to easily categorize and keep track of the multiple relations between families. The model additionally makes feasible the systematic listing of individual parameters as independently contentful when appropriate, which goes a long way in facilitating a grasp of ASL morphology as primarily compositional rather than concatenative. This distinction seems to satisfy one of the stated goals of the article, as it supports the ostensibly 'appropriate' differences between the morphologies of ASL and English based on the differences between their modalities.

As stated earlier, the model does not present the morphology of ASL as significantly iconically motivated, however, and indeed Fernald and Napoli seem very reluctant to exploit this characteristic of the structure of the language to its full potential. This prevents their analysis from offering a systematic and *productive* account of how the very close link between form and meaning in ASL operates as it does, or *why* the grammatical rules of ASL morphology operate as they do. Although they play with the notion of iconicity in various morphological processes such as reduplication or secondary movement, and even argue frequently that the various connotations of meaningful parameters combine to give the full 'sense' of a complete sign, Fernald and Napoli repeatedly conclude that connections between 'strong senses' of meaning and

small parts or processes of lexical items are “arbitrary” (Fernald & Napoli, 2000: 26, 39). Their dismissal of the iconicity of secondary movements such as finger wiggling or spritzing based on the fact that these movements can occur without their typical respective connotations of ‘continuity’ and ‘intensity’ is too absolute. As shall be discussed in detail in regards to Taub’s Analogue-Building Model of iconicity, even partial semantic motivation of a lexical or sublexical item’s form provides salient, productive and predictive information that is undeniably helpful in achieving a thorough analysis of ASL morphology.

Furthermore, although their ion-morph model “owes much to” Liddell & Johnson’s work on incomplete feature bundles, Fernald and Napoli depart from this analysis, “assign[ing] no meaning” to these structures “independent from the alternating parameter” (Fernald & Napoli, 2000: 32). This again seems a rather extreme position to take in light of the vast amount of sublexical semantic information that they have acknowledged and that, indeed, prompts their model in the first place. I will argue below that theories which seek to incorporate conceptual or cognitive schematic structures into linguistic units of meaning, however small, may be able to round out this picture and account for the observable connotations and pieces of meaning that exist in (the forms of) incomplete or sublexical constructions.

Taub’s Analogue-Building Model of Linguistic Iconicity

In her discussion of the structure of American Sign Language, Sarah Taub (whose model of conceptual metaphor in ASL we will be examining shortly) places a great deal of emphasis on the productive power of iconicity in ASL. She argues that motivation, if not fully determined meaning, potentially can be found at every structural level for many signs, and that iconic mapping between a sign’s form and its semantic content has a special relationship to the use of conceptual metaphor in ASL (Taub, 2001). Taub explains the structure of many signs in ASL by way of correspondences between the sign’s structure and the physical or conceptual structure of the entity the sign names. She thus posits an Analogue-Building Model of Linguistic Iconicity to account not only for the construction and meaningfulness of signs in ASL, but also for the process by which all entities are schematically conceptualized for linguistic processing, whether that processing is employed in spoken or signed languages (Taub, 2001).

Taub uses the example of the ASL sign for ‘tree’ to walk through the Analogue-Building Model (and, presumably, to call to readers’ minds the famous structuralist example of Arbitrariness as a contrastive backdrop for her theory). Taub summarizes

this model as consisting of an *image-selection* stage or process, a *schematization* stage, a process of *encoding*, and a condition of *structural preservation*:

"To create an iconic item, one *selects* an image to represent, modifies or *schematizes* that image so that it is representable by language, and chooses appropriate forms to show or *encode* each representable part of the image. Moreover, when modifying the image or 'translating' it into linguistic form, one makes sure that the new image preserves the relevant physical structure of the previous stage" (Taub, 2001: 44).

Taub argues that, given a perceived entity or concept in need of linguistic representation, e.g. 'tree', we *select* a "sensory image" of the concept to stand for the whole. In English, the selected representation is (a) auditory and temporal, corresponding to the modality of the language and (b) arbitrary, in that there appears to be no semantically or conceptually motivated connection between that acoustic image and a tree. In ASL, the selected representation is (a) visual and temporal, corresponding to the modality of the language and (b) iconic, in that there is an identifiable connection (resemblance relationship) between the visual image selected and a tree. The shape and spatial arrangement of the sign resembles the shape and spatial arrangement of a tree (rooted in the ground). Taub points out that this metonymic selection itself is somewhat arbitrary; the choice between a sometimes significant number of appropriate possibilities may be culturally motivated, constrained by the modality and/or the grammatical rules of the language, or random, but it is based on and ultimately reflects an iconic part-whole relationship. The connection of the selected image to the meaning of the sign is then conventionalized (Taub, 2001).

A concept's selected image requires schematization for language processing. Taub writes: "Our sensory images, like any concepts that we wish to communicate, must be reformulated in terms of a *language-specific system* of schematic semantic categories" (Taub, 2001: 47). In the example of the ASL sign TREE (Fig. 4), we get rid of richly vivid sensory detail as well as extra encyclopedic or pragmatic information: the unique network of a tree's branches and foliage patterns, the feel of its bark, its seasonal status, its primary geographic location, and all other characteristics of 'tree' are reduced and essentialized into three main elements: the flat level surface of the ground, the emerging tall vertical shaft of the tree trunk, and a "complex branching structure" on the top of the shaft (Taub, 2001: 46). We have now schematized the visual image of 'tree' into the semantic categories "flat," "branching," and "tall" (Taub, 2001: 48).

These semantic categories are then encoded into actual linguistic forms (Fig. 5). The encoding process uses *iconic image-schematic items* conventional to the particular language to link the semantic category with a phonetic form (Taub, 2001). Structure-preserving correspondences between form and content ground these image-schematic



FIG. 4 TREE

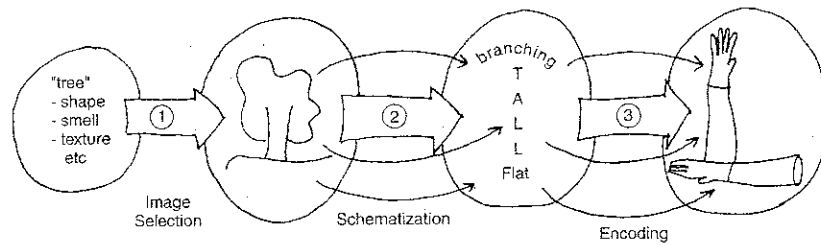


Figure 4.1. Analogue-building process for American Sign Language (ASL) TREE, showing (A) the initial concept *tree*, (B) prototypical visual image of a tree, (C) image schematized to fit ASL's categories, and (D) image encoded as TREE, and the three processes of (1) image selection, (2) schematization, and (3) encoding; arrows show structure-preserving correspondences between B, C, and D.

FIG. 5

tools. In this example of TREE in ASL, the 'form' (Taub uses this term, but a more specific one may be used, such as handshape, classifier, etc) of Forearm is conventionally paired with the meaning of Flat surface. The use of this form thus calls up the conventionally associated meaning, which is also iconically related to the meaning and is perhaps responsible for the conventionalization. Taub also provides examples of conventionalized form-meaning pairings in English, such as the connotative link between Initial *p-*, *b-*, *pl-*, *kl-*, *kr-* and the meaning of Abrupt onsets (Taub, 2001). While Taub thus provides a model for structuring linguistic signs by iconically and/or metaphorically representing the structure of their meanings (including spatial and temporal ordering), she also emphasizes the extent to which arbitrariness shapes iconicity. Taub writes,

"There are the levels of choosing particular iconic building blocks for linguistic forms, and of choosing particular composites of these building blocks to retain as lexical or syntactic items in the language. These language-specific choices are an important part of what makes the encoding process different (more *constrained*) than free mime or imitation" (Taub, 2001: 48).

This is a particularly important point regarding ASL, where legitimate and important efforts to present the language as a true, independent, systematic and complex language can sometimes result in hesitation to discuss or analyze the extent to which iconicity, pragmatic information, and conceptual structure are prevalent in the construction and use of the language. As Taub points out, however, the choices made in the encoding process significantly reflect the operation of phonological, morphological, and syntactic rules in ASL.

2.3 Conceptual Metaphor in the Structure of ASL Signs

Taub's Double-Mapping Model of Conceptual Metaphor in ASL

Taub makes use of Lakoff and Johnson's Conceptual Metaphor Theory and her own Analogue-Building Model to discuss the role of conceptual metaphor in American Sign Language. She posits a "Double-Mapping Model," in which a concrete (derivable from experientially basic physical being) source domain is mapped twice: iconically, onto the formal structure of a sign, and metaphorically, onto a conceptually or experientially abstract target domain. A double-mapping model appears to be necessary for conceptual metaphor in ASL; metaphor in ASL is different from metaphor in English and other spoken languages in that it normally does not use conventional lexical items from one domain (source) to describe another (target), as in *Sally is a block of ice*. Rather, the linguistic structure of a sign is often altered at some parameter or level to indicate a

metaphorical usage; in English, this would be like pronouncing or forming a word or phrase differently to indicate that the conventional meaning is not intended. As Taub explains the phenomena, "the target domain is actually presented using an iconic depiction of the source domain" (Taub, 2001: 97). Per the above discussion, Taub's Analogue-Building Model can be called upon to account for the source domain's iconic mapping onto a sign's structure in order for the target domain to be metaphorically expressed. Metaphor is therefore expressed in ASL either through the creation of new signs, through creative modification of conventional signs, or via "the establishment of a metaphorical scene or object that can be manipulated meaningfully throughout the discourse" (Taub, 2001: 98). As the model presented in Lakoff and Johnson's CMT applies to conceptual, not (linguistically) formal, correspondences between source and target domain, it cannot account for such processes as those just listed. There is no way of predicting or explaining the creation of brand new lexical items or meaningful formal variations in this theory (although there may be in Blending Theory). Taub thus introduces her more complex model.

Let us consider one of Taub's in-depth examples of the presence of a conceptual metaphor in ASL and how the Double-Mapping Model can be applied to it. Referring to a conceptual metaphor that has been well established in the Lakovian cannon, Taub cites the ASL inflected signs I-INFORM-YOU, THINK-PENETRATE, and COMMUNICATION-BREAKDOWN as expressions of the *COMMUNICATION IS SENDING* metaphor. She describes the articulation of the sign I-INFORM-YOU (Fig. 6; variations: Fig. 8): "both hands begin in a closed, flat-O shape; the dominant hand's fingers touch the signer's forehead, whereas the nondominant hand is in the 'neutral space' in front of the signer. Both hands move toward the addressee while the fingers spread open" (Taub, 2001: 99). She points out that in ASL's classifier system, the Flat-O shape characterizes the holding or manipulating of a small, probably flat, possibly disc-shaped object such as a coin. If the use of this classifier in I-INFORM-YOU were to be taken literally, Taub writes, "it would denote the signer's taking a flat object out of the forehead and tossing it at the addressee" (Taub, 2001: 100). Yet clearly this is not what is meant by the sign; the signer is indicating that she is communicating information to the addressee, not throwing an actual object at him. This is therefore an example of the metaphoric mapping that takes place between the iconic articulation of the source domain and the intended meaning of the target domain in I-INFORM-YOU.

The source elements that Taub lists in her double-mapping of I-INFORM-YOU (Fig. 7) are Objects, Head, Holding an object, Objects located in head, Sending an object to someone, Sender, and Receiver. These elements are physically and experientially basic

Fig. 6

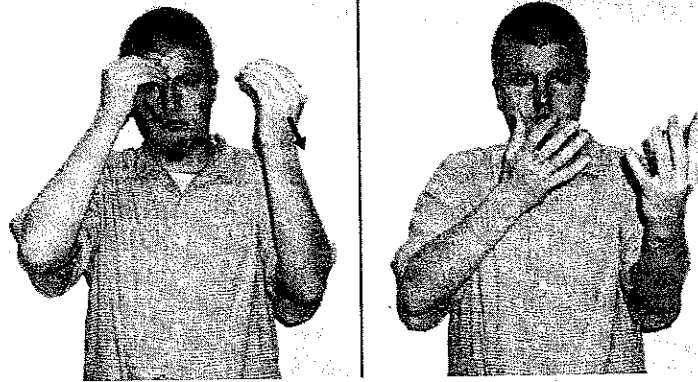
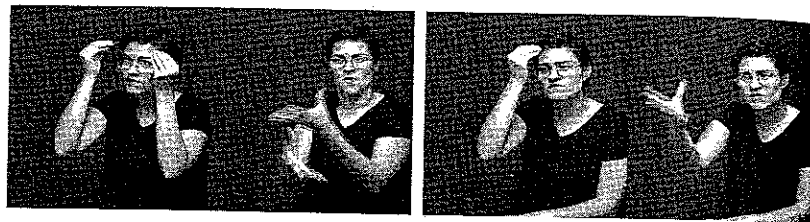


Figure 6.4. I-INFORM-YOU.

TABLE 6.5. Double Mapping for I-INFORM-YOU

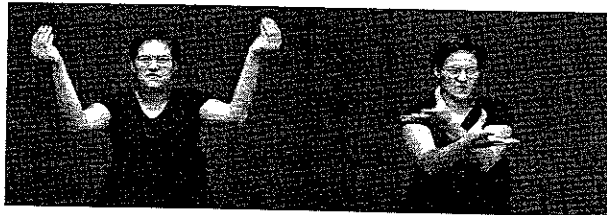
ARTICULATORS	METAPHORICAL MAPPING	
	SOURCE	TARGET
[Null]	Objects	Ideas
Forehead	Head	Mind; locus of thought
Flat-O handshape	Holding an object	Considering an idea
Flat-O touches forehead	Object located in head	Idea understood by originator
Flat-O moves toward locus of addressee and opens	Tossing an object to someone	Communicating idea to someone
Signer's locus	Sender	Originator of idea
Addressee's locus	Receiver	Person intended to learn idea

Fig. 7



a. INFORM^{→y} (2 hands)

b. INFORM^{→y} (1 hand)



c. INFORM^[RECIPIENT]



d. INFORM-1^[RECIPIENT]

Fig. 8

sources:
Taub, 2001
Liddell, 2003

and well-known to us; we use them as conceptual analogues to the more complex notions of ideas and communication. They thus respectively map onto or correspond to the target domain elements of: Ideas, Mind/locus of thought, Considering an idea, Idea understood by originator, Communicating idea to someone, Originator of idea, and Person intended to learn idea.

In ASL, conventional, 'literal' expressions like I-INFORM-YOU reflect a metaphorical mapping, as the sign itself is structured by reference to source domain elements. The source domain elements are iconically mapped onto different articulators: Head is referenced by the *location* of Forehead; the experience of Holding an object is represented by the Flat-O *handshape*; Object located in head is shown with the *movement* of Flat-O touching the forehead; Tossing an object to someone is demonstrated with the *movement* of the Flat-O towards the locus of the addressee, and with the *opening* of the Flat-O to demonstrate the releasing or sending of the object; the Sender is represented by the Signer's *locus*, and the Receiver by the Addressee's *locus* (Taub, 2001: 103). *The ASL sign's iconic representation of elements in the source domain automatically refers to and accesses the elements in the target domain because certain cross-conceptual-domain correspondences hold between source and target domains in the conceptual metaphor COMMUNICATION IS SENDING* (as evidenced by metaphorical expressions amassed by Lakoff & Johnson, etc). Thus, when an ASL signer signs a sign in which a Flat-O handshape touches the forehead, moves towards the location of the addressee and opens, she has expressed to her conversation partner the semantic content 'I communicate information or knowledge to you' (I-INFORM-YOU), rather than 'I hold an object to my head and then throw it at you', or 'I take (or pretend to take) an object from my head and throw it at you'. Interestingly, English speakers might interpret an expression like 'I take an object from my head and throw it at you' metaphorically to mean 'I communicate information or knowledge to you'. As shall hopefully become clear, it is frequently the case in ASL that the metaphorical-iconic structures of signs directly convey conventional (non-figurative) meanings.

Taub's demonstration of the metaphorical motivation of the structure of signs in ASL offers a very different kind of evidence for the cognitive reality of cross-conceptual domain mappings than that amassed by Lakoff, Johnson, and others. While there seem to be differences in how these mappings are most frequently manifested in a language (as the mapping appears to motivate form and structure in ASL much more so than in English), certainly the phenomena is found cross-modally. It is not clear, given Taub's models, whether metaphor in ASL can be expressed non-iconically, or how it functions as compared to longer metaphorical expressions, idioms, or in discourse contexts. These

questions are addressed in later sections; now I'll further consider the implications Taub's models have for analyzing the interaction between semantics and morphology in ASL.

Accounts of Meaning in ASL Morphology Revisited: Metaphor as Motivation

Taub's discussion of multiple metaphorical parameters in a single sign takes an interestingly alternative approach to the phenomena of lexical families related by morpho-phonemic parameters that Fernald and Napoli (2000) describe in their positing of 'ion-morphs'. Taub writes,

"...entire metaphors (albeit simple ones) can be represented by one parameter of a sign. But signs have many parameters. It should not be surprising, then, to learn that a single sign can incorporate more than one metaphorical-iconic parameter. In fact, there are signs whose handshape, movement, and location are all motivated by different metaphors" (Taub, 2001: 125).

On Taub's view, then, the signs that can be placed in lexical families, based on shared meanings and on shared form-and-meaning relationships, share underlying conceptual-metaphorical motivations. Taub presents a thorough, extended example of emotion signs in ASL to explicate this trend further; we will only concentrate on a few of these signs, those that are expressions of the *HAPPY EMOTIONS ARE UP* metaphor. This metaphor inherits the correspondences of the more primary *GOOD IS UP, BAD IS DOWN* conceptual metaphor it instantiates. (Some English expressions that manifest the more specific metaphor are: 'I'm feeling down today', 'I'm high as a kite', 'joy overflowing', and 'a downward spiral'.)

According to the double mapping of this metaphor, the articulators at the iconic level of mapping are Upward movement and Downward movement. The elements in the source domain (which operates at both the iconic and the metaphorical levels of mapping) are Top of the vertical scale and Bottom of the vertical scale. The elements of the target domain, which is the metaphorically represented domain, are Happy emotions and Unhappy emotions (Taub, 2001: table on 128). So in all of the signs in ASL that I'm about to cite as instances of this metaphor, the parameter of movement reflects positions on a vertical scale which in turn correspond to happy and unhappy emotions (happy if the movement of the sign is upward, unhappy if it is downward). The signs *INSPIRE*, *HAPPY*, *THRILL*, and *EXCITED* (Fig. 9) all have upward movement and all denote positive feelings, while the signs *SAD* (Fig. 10), *DEPRESSED*, and *DISAPPOINTED* all use downward movement and denote negative feelings (Taub, 2001). Arguments for both the prevalence and the primacy of conceptual metaphors can be made based on these correspondences between linguistic form, linguistic meaning, and



Figure 7.13. SAD.



Figure 7.14. HAPPY.

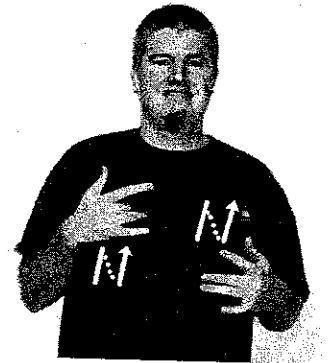


Figure 7.16. EXCITED.

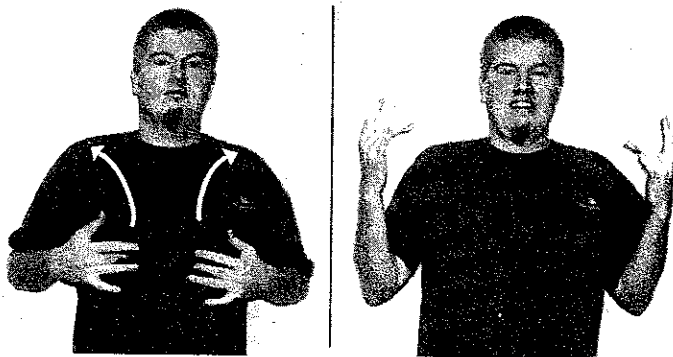


Figure 7.15. THRILL.

Fig. 9

source: Taub, 2001

physical experience (feeling 'elated' when experiencing a positive emotion, 'low' when depressed, correspondences between mood and posture, etc).

Many of the signs just mentioned, such as HAPPY and EXCITED, also structurally reflect another conceptual metaphor: *THE LOCUS OF EMOTION IS THE CHEST* (Taub, 2001). This metaphor reflects a larger metonymic trend of mapping different mental experiences onto different parts of the body (for example, the conceptualization of thought, thinking, reasoning, etc. as being 'in the head'). Metaphorical expressions in English based on the *THE LOCUS OF EMOTION IS THE CHEST* metaphor include 'broken heart', 'pull heartstrings', 'really gets you right here [pointing to chest]', and others. In the ASL signs HAPPY and EXCITED, as with many emotion signs, the location is at the chest, and the sign starts out touching the chest, and possibly makes contact with the chest multiple times. This pattern of contact, particularly when made with the open-8 handshape, draws on yet a third conceptual metaphor: *FEELING IS TOUCHING* (Taub, 2001). Since one of the connotations of the open-8 handshape is *physical touch* or *contact* (Taub, 2001), as seen in the signs FEEL, PITY, SICK, THRILL, EXCITED, DISAPPOINTED, TOUCHED, and CONCERN, the parameter combination of this handshape with a chest location, or with an upward or downward movement, is highly productive. On Taub's view, the meaning of signs like THRILL, and even of novel signs making use of these "metaphorical-iconic" parameters (such as a sign that might mean SAD-AND-EXCITED-AT-THE-SAME-TIME, made by moving the hands in open-8 configuration in opposite vertical directions on the chest), as "predictable" and "transparent" given their form (Taub, 2001: 130, 132).

While it seems safe to say that these expressions demonstrate the operation of 'multiple metaphors in a single sign', does it necessarily follow that all of these metaphors, or all of these metaphorically significant parameters, are expressed iconically? Taub's Double-Mapping Model ostensibly maintains an iconic mapping as well as a metaphorical mapping in all signs that use concrete terms to express abstract concepts. This seems to rule out cases of metaphorical usage in which the sign's form is arbitrary, yet Taub herself readily points out that not every sign and not every parameter is iconically connected to its semantic (or morpho-semantic) content. In the above examples, the upward or downward motion of the movement parameters, the chest as the location parameter, and the 'touch' handshape of the handshape parameter, each iconically represent the source elements of their respective conceptual metaphors (*HAPPY IS UP; THE LOCUS OF EMOTION IS THE CHEST; FEELING IS TOUCHING*). Taub does not present other examples that do not depend on iconicity.

Taub borrows Brennan (1990)'s term of 'metaphorical compounds' to describe signs whose form is mostly motivated by metaphorical iconicity (such as THRILL). Taub assigns meaning to individual parameters and gives a schematic source, based on metaphorical conceptualizations of abstract emotional concepts in terms of more basic physical experiences, for these meanings. She points out that similar features of compositionality and productivity are found in the morphology of metaphorically-motivated compounds in English as well as ASL (e.g. *black-hearted* and *cold-hearted*, which each use some combination of the following metaphors: *THE LOCUS OF EMOTION IS THE HEART*, *GOOD IS WHITE*, and *AFFECTION IS WARMTH*) (Taub, 2001). The only difference that Taub posits between the two languages in regards to the construction of compound metaphorical expressions out of multiple conceptual metaphors is the following: "the ASL signs express their metaphors *iconically* and *simultaneously*, rather than using *arbitrary* words in *sequence*, as spoken languages do" (Taub, 2001: 134).

This difference may not be as simple as Taub's succinct statement suggests, however. Are metaphors in ASL ever expressed non-iconically? Does every iconic sign have corresponding *metaphorical* connotations, as opposed to other figurative processes? Do underlying conceptual metaphors count for all instances of lexical families, or might we need a model like the one Fernald and Napoli suggest to explain form-and-meaning relationships between signs whose shared form-and-meaning connections are arbitrary? In all of the examples Taub discusses, the conceptual metaphor is seen as already being cognitively in place, and therefore as motivating, both occurrences in questions (metaphorical expressions in English, metaphorical signs in ASL). As Taub writes near the end of her book,

"Language, in any modality, is motivated – it draws on structures and associations in the language user's conceptual system. Iconicity, a feature of all languages, is based on our ability to associate sensory images with concepts, simplify those images, and create analogues of them using the resources of the language, all the while preserving the essential structure of the original image. Conceptual metaphor, another feature of all language, creates associations between abstract and concrete conceptual domains. Although all languages have metaphor and iconicity, signed languages excel at putting the two together to create a vast range of iconic and metaphorical/ iconic words, inflections, and syntactic structures" (Taub, 2001: 231).

Yet there may be something more significant in the fact that in ASL, the influence of the conceptual metaphor is found on both formal and semantic levels, while in English, it is primarily semantic. Given that signs in ASL are often at least partially iconically and/or metaphorically structured, the idea of a 'fixed' sign in ASL is very different from this notion in English. While ASL certainly has a 'citation' vocabulary of uninflected lexical items, it remains the case that variations of meaning are achieved by variations of form

(to a greater, non-trivial degree other than that achieved by 'usual' morphological processes). Can we even say, then, that there are idiomatic or conventionalized metaphorical expressions in ASL, if metaphor is not expressed through syntactic manipulation of fixed forms, but rather through structural manipulation that must always result in novel forms, whose new meanings are transparent upon a literal reading? Taub's Double Mapping Model accomplishes a great deal in terms of analyzing the metaphoric and iconic motivation behind signs such as HAPPY, I-INFORM-YOU, THRILL, etc., which are then interpreted literally. However, the issue of non-iconic metaphorical expressions, as well as that of idiomatic or non-metaphorical conventionalized expressions in ASL, still needs to be explicitly addressed.

2.4 Conceptual Metaphor in Metaphorical Expressions in ASL

Wilcox: Metonymy, Metaphor, and Blends in Structure and in Usage

Phyllis Perrin Wilcox, writing in the 2004 issue of *Cognitive Linguistics* (15-2), also uses Lakoff & Johnson's theory of conceptual metaphor in analyzing instances of metaphor in an interview with a native ASL speaker.¹⁰ In discussing some of these examples Wilcox employs a model much like Taub's; in others she emphasizes a conceptual integration or blending approach to metaphor.

At one point in the dialogue, the native speaker places two C handshapes on his head, one on either side, thus evoking the ontological metaphor *THE MIND IS A CONTAINER* as well as a spatial metonym in which the top of a computer is metaphorically located at the head. Wilcox discusses the effect of one of the image-schematic constraints of the *MIND IS A CONTAINER* metaphor on its metaphorical expressions: the *front-back* image-schematic structure that partially characterizes the spatial orientation of a three-dimensional container gives rise to conceptualizations of certain kinds of thoughts being located in a certain front-to-back hierarchy in the brain. In English, we have such expressions as 'it's at the back of my mind somewhere'. The same image-schematic information influences expressions in ASL:

"Deaf people systematically use the forehead to represent conscious thinking when using ASL, as exemplified by such signs as REMEMBER, MEMORIZE, UNDERSTAND, FORGET, THINK, BRILLIANT, IMAGINE, OPINION, WISE, SUSPICIOUS, OPEN-MINDED [and others]. ...The back of the head is reserved for signs referring to unconscious thought. This placement either (1) metaphorically hides information from other speakers, (2) is inaccessible to the signer under normal thought processing, or (3) has stored knowledge, perhaps gained through years of experience (Wilcox 2000: 107)" (Wilcox, 2004: 201-202).

¹⁰ The dialogue is about the native speaker's struggle as a deaf person for recognition of intellectual equality (Wilcox, 2004: 197).

According to Taub's model, we could explain these patterns by saying that the parameter of location in these signs iconically activates the *MIND-AS-CONTAINER* metaphor. Taking the analysis a step further, we might also say that the image-schematic structure that is mapped in the metaphor (the front of the brain corresponding to more accessible information, etc) is preserved iconically in the ASL sign. Wilcox discusses other metaphorical, metonymical, and metaphorical *and* metonymical examples in the dialogue, such as the signing of *MACHINE* near the forehead to highlight mental processing. Usually, *MACHINE* is signed in neutral space, in front of the speakers' midsection. The change of the location found in the native speaker's dialogue makes use of the metonymical relationship INSTRUMENT FOR ACTION between the location of the forehead and cognitive activity and the metaphor of *MIND AS COMPUTER* to give the interpretation of 'mental processing' (Wilcox, 2004).

It is interesting to note that unlike the case of signs such as *I-INFORM-YOU* or *REMEMBER*, in which either an iconic representation of a source domain or a metaphoric association between abstract concepts and physical experiences of them (or both) is the structural motivation of one or more of the sign's *standard* parameters, in this case the *change* of a parameter signals a metaphorical usage and elicits a metaphorical interpretation. Is this second case an example of a metaphorical *expression*, closer to the phenomenon frequently discussed regarding spoken languages, whereas the earlier cases examined by Taub are examples of ASL's use of iconicity associated with conceptual metaphorical phenomena to structure its signs? If so, we might declare two distinct operational levels of conceptual metaphor in ASL: one that structures the conventional signs by motivating iconic representations of source elements at the level of parameters, and another process that underlies a variation or extension of an established meaning through the alteration of a (standard, citation) parameter in a given context. In all cases, however, we find in ASL an openness or underdeterminedness of phonological and morphological parameters that allows the form of the sign to convey meaning dynamically, iconically, systematically and holistically.

We have so far examined instances in the dialogue when the native speaker refers to his forehead as a locus of cognitive activity and as a computer (sometimes using the former to express the later). As the dialogue continues, however, he also discusses his forehead as a printer and as a lockbox requiring a key. Wilcox uses the theory of conceptual integration, or blending, to demonstrate the conceptual (and resulting narrative) consistency of these different construals. Wilcox thus agrees with Fauconnier and Turner's claim that "the theory of blending or conceptual integration

subsumes metonymy and metaphor as special cases of more general mental mapping mechanisms (Fauconnier, 1997; Turner & Fauconnier, 2002)" (Wilcox, 2004: 208).

Wilcox explains the conceptual integration resulting in a multifaceted construal of the native speaker's mind (Fig. 11) that gives rise to these varied linguistic metaphorical expressions: the concepts of *container* and *means of access* make up the generic space, which means that these concepts are the common link between the input spaces, which can then be extended metaphorically in discourse. The generic space builds a Computer space, through which the conceptual domain of *processing* can be expressed metonymically through reference to the space's elements 'keyboard' and 'computer'. The generic space also builds a Printer space, according to which a *presenting* domain can be accessed through a metaphorical discussion of the native speaker's thoughts as 'paper' (which is printed out when a 'button' is pressed). The elements in and structure of the generic space also build a Safe/Lockbox space, in which the domain of *preserving* consists of the elements 'key' and 'door of safe'; given the structure of this domain, we can talk about preserving thoughts, or keeping them safe and secret, by referring to these elements. Together, all generated by the same underlying generic, or schematic, structure, these spaces build the emergent blend space of the Native Speaker's Mind (Wilcox, 2004: 208). The native speaker can thus talk about his mind by calling on any of the metaphoric or metonymic spaces generated by the generic space to produce conceptually coherent metaphorical expressions.

While this thorough account does explain the conceptual links and consistencies behind the native speaker's different ways of talking metaphorically about his mind, Wilcox's integration model does not include the iconic elements of formal structural parameters (such as location as a common parameter linking meanings) that demonstrate many of these metaphoric usages and construals as well as make them possible and accessible for linguistic usage. Perhaps this analysis of conceptual integration would fall into the latter category of conceptual metaphorical operation outlined above, that category concerned with metaphorical uses of 'non-metaphorical' terms in context (and here 'metaphorical' and 'non-metaphorical' are oblivious to the possible role metaphor played in structuring these signs iconically). Such a classification would elaborate upon the notion of double mapping at the heart of Taub's model, in which associations between conceptual structure, sensory experience, and linguistic form iconically and metaphorically build the signs themselves, which, as demonstrated by Wilcox, can then be structurally manipulated further via the same sorts of associations to achieve a second level of non-literal, 'metaphorical' usages.

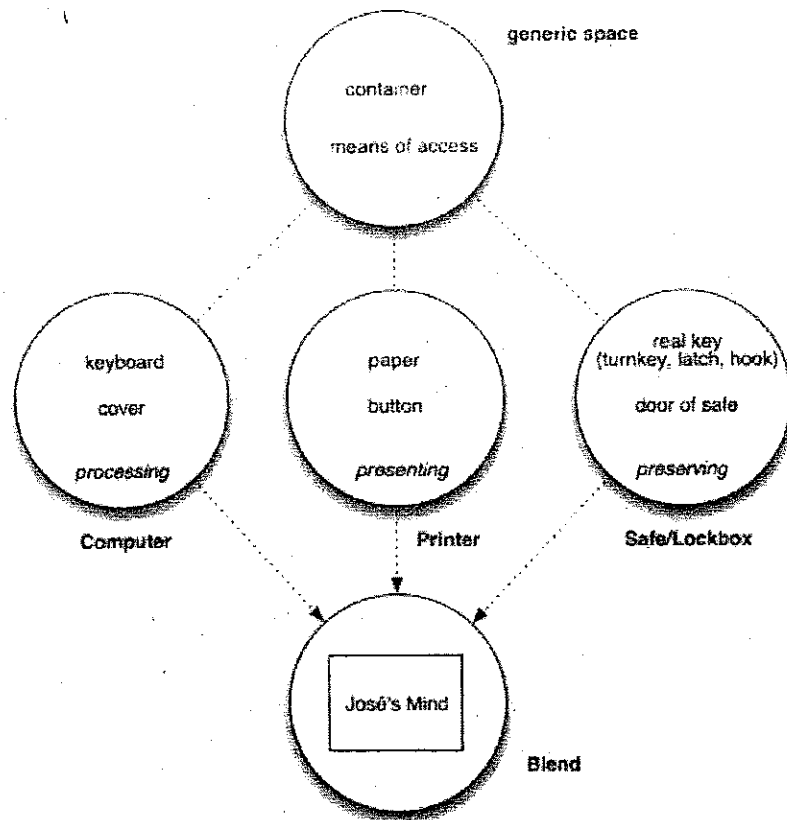


Figure 4. *Conceptual integration of José's mind*

Fig. 11

Liddell: Five Brothers

Liddell devotes a long chapter near the end of *Grammar, Gesture, and Meaning* (2003) to analyze an interview with a deaf native ASL signer about his family members, who are predominantly deaf, focusing on himself and his four deaf brothers. One important point that Liddell makes in this analysis is that in ASL, contrary to established belief, spatial representations used for reference purposes are not simply set up at the start of a discourse and then faithfully referred back to throughout the conversation or monologue. Rather, multiple dynamic blends are used to allow referents to be alternately referred to depending on the context or topic and to allow spatial representations to adapt to new information (Liddell, 2003). Liddell uses as an example a part of the interview in which the native signer explains the ages of the brothers, particularly that of the youngest brother, who is the farthest in age from the fourth brother than any of his brothers are to each other. At this point in the interview, the signer has already used one frame of reference - the five fingers on his nondominant hand - to mark off the ages of the brothers. 'Fifth brother' has thus already been signed via a blend of a FIVE-LIST buoy¹¹ and various spatially significant gestures based on the structure of the buoy (Liddell, 2003). Now the native signer introduces a new blend, 'baby brother', to talk about how that brother is so much younger than the others. This time the fifth brother is picked out by signing PRO^{vx} in a space to the far left of where he just signed BORN in a statement telling the interviewee that he, the fourth brother, had been expected to be his parent's last child. Rather than using the appropriate place on the FIVE-LIST buoy, or a location that would spatially refer back to the established FIVE-LIST buoy, the signer introduces a new way of talking about the youngest brother that picks out the most salient identifying detail, given the new topic in the conversation.

Liddell also discusses simultaneous use of metaphors in this dialogue. Later on in the interview, the native speaker explains the various generations of deafness and non-deafness in his family, including which brothers have deaf children and which do not. First Liddell demonstrates that the native signer depicts the path of four 'weak' (prone to hearing children) genetic lines of his brothers by creating a blend onto which a spatial indication of time, the interviewer's family tree, indications of specific generations, and a downward orientation indicating something 'negative' or 'weak' are all mapped (Liddell, 2003: 344). The signer accomplishes this by mapping the four weak

¹¹ This term describes a sign made by the weak hand that is held in a stationary configuration while the strong hand produces signs simultaneously. "Semantically they help guide the discourse by serving as conceptual landmarks as the discourse continues" (Liddell, 2003: 223). Since they serve their role by maintaining a physical presence, Liddell uses the term 'buoy'.

genetic lines onto the four extended fingers of his left hand, and placing this hand beside his right, which has already been established as a THEME buoy with the significance of 'third generation'¹²; time is indicated by the space traversed by the left hand (Fig. 12). In building this formal blend, which is able to convey a great deal of information in just one novel sign, the signer accesses certain additional affective information by relying simultaneously on two conceptual metaphors: *THE FUTURE IS FORWARD/AHEAD* and *GOOD IS UP, BAD IS DOWN*.

In explaining that out of the five brothers who could have had deaf children, only one of them did, the signer creates a forward and downward path in the depicting space to set up the sequence of events (Liddell, 2003). The forward motion represents the passing of time from a potential point before any of the brothers had children to now; the downward motion reveals a negative attitude toward this sequence of events.

Liddell writes,

"By creating a forward-downward path, the signer simultaneously incorporates both metaphors. Thus, not only does he overtly describe the change as negative by using the *th* nonmanual signal, he also depicts it as negative by changing the level at which the two signs are produced, consistent with the 'good is up, bad is down' metaphor" (Liddell, 2003: 349).

Later on, in making the hopeful point that in subsequent generations, deafness could again be genetically realized, the signer employs the signs SPREAD and AGAIN. The sign SPREAD is started at the tip of the finger that is being used in the ONE buoy that has been set up to speak of the one line that has continued to produce deaf children. The spreading of deafness is conceived of as starting there and as moving up and forward, as depicted by the movement used in signing SPREAD (Liddell, 2003). According to Liddell, these decisions about location, movement, and orientation "depict future generations of Deaf family members spreading out on [an] upward positive plane" (Fig. 13) (Liddell, 2003: 350).

Liddell's evaluation of this dialogue demonstrates, much as Taub and Wilcox also demonstrate, that certain conceptual metaphors that have been established in regards to English and other spoken languages are present and active in the way that ASL signers frame their thoughts for expression. Underlying conceptual structure and cognitive processes of construal are found in the structure of 'normal' or 'conventional' signs, and are again accessed and manipulated in the formation of new and non-literal expressions and in dynamic meaning construction in discourse. In seeking to deconstruct the intertwining progression of structural variations and cumulative reference constructions, Liddell observes the phenomenon of blending as the discourse unfolds.

¹² See Liddell, 2003: 342-344 for explanation of this.

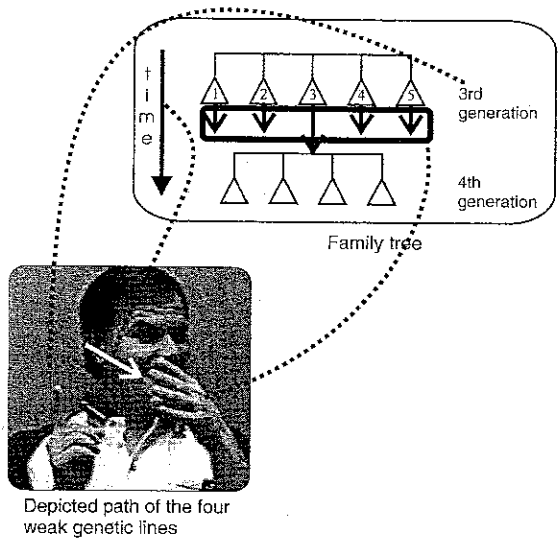


Figure 10.23 Mappings onto the THEME buoy and the moving 4 hand

FIG-12



Figure 10.29 The depicted spread of future generations of Deaf family members

FIG. 13

The cognitive processes identified by Lakoff, Fauconnier, Grady and others are identified in ASL discourse, but appear here more multi-dimensional and complex. Does ASL express conceptual metaphors differently? Does it integrate concepts and construct complex reference situations uniquely? Liddell himself does not necessarily think so:

“It is possible, of course, that ASL in particular, and signed languages more generally, are organized differently than vocally produced languages. ...This is a highly unlikely result since the human brain with all its conceptualizing power creates and drives both signed and spoken languages. It is much more likely that spoken and signed languages both make use of multiple types of semiotic elements in the language signal, but that our understanding of what constitutes language has been much too narrow” (Liddell 2003: 362).

If this is indeed the case, then ASL’s lessons of the intricate interplay of different construal devices, of cumulative construction, and of the dynamic grammaticalization of concepts achieved through manipulation of language-specific constraints should be applicable to English. Perhaps our older ideas of conceptual metaphor in this and other spoken languages have also been too narrow.

II. Analysis

1. Pilot Study Applying Theories Reviewed to Everyday Expressions in ASL

1.0 As §1.2 made quite evident, drawing clear distinctions between metaphor and iconicity in ASL signs is both a necessary and a highly perplexing task. Conceptual Metaphor Theory itself relies on a good amount of guided intuition and attention paid to subjective experiences of understanding; looking at the structures, uses and meanings of signs and expressions in ASL further complicates our understanding of how different semantic/ cognitive domains are interacting with each other and with linguistic behavior/processes. Iconically motivated forms sometimes evoke their meanings through metonymy and frequently through fairly straightforward schematic resemblance; these meanings normally are not interpreted as an exact literal translation of the iconic form, then, but on the basis of salient and metaphorically motivated similarities.

Metaphoricity can sometimes also be located in a sign’s form, but more often than not is the motivating force behind *usages* in the context of a particular discourse – though such usage is typically realized through the alteration of form. Perhaps the most prevalent of the phenomena in question is some kind of interaction between iconicity, metaphor, metonymy, and other tropes. Disentangling these relationships is a delicate yet worthwhile step towards attaining a better understanding of the richly expressive nature

of signed languages and better situating conceptual metaphor and related processes of meaning construction in Cognitive Semantics theory.

1.1 Guiding Models and Studies for My Data Collection & Analysis

Wilcox: Unweaving Metaphor from Iconicity

Phyllis Perrin Wilcox, whose recent aforementioned article in *Cognitive Linguistics* offers several pictures of iconicity, metaphor, and conceptual integration in ASL, has written an entire book on the subject of separating iconicity from metaphor in ASL. In *Metaphor in American Sign Language* (2000), Wilcox reviews the work of many other linguists in these areas and reclassifies the phenomena they discuss as either iconic, metaphoric, or some combination of the two. After positing criteria for the most accurate evaluation of the presence and action of these phenomena, Wilcox presents and analyzes data from her own semi-ethnographically structured study of metaphorical expressions of thought and language in native (or native-level) signers of ASL. Wilcox's careful insight into this subject lends a guiding and clarifying hand to the review of my own limited data.

The primary criterion that separates iconicity from metaphor for Wilcox is the juxtaposition of two *separate* conceptual domains. Wilcox writes, "While metaphors cross semantic boundaries and juxtapose two different domains or referents, iconicity refers to aspects of signs that are chosen on the basis of resemblance" (2000: 44). The relationship between an iconic form and the meaning of the form is a relationship of resemblance between two elements in the same conceptual domain. For example, the sign for WRISTWATCH (Fig. 14) that uses an F-handshape and a location on the top of the wrist to demonstrate the face of a watch that sits on the arm is *iconic*; an image or gestured representation of a wristwatch is not in a different conceptual domain, broadly speaking, than an actual wristwatch (Wilcox, 2000). (A concrete statue of a robin can belong to the cognitive category of *bird*, etc.)

A more contrastive example is found with the sign BUILD (Fig. 15). Wilcox's explanation of the ways in which this sign is iconic, metonymic, and metaphoric offers very strong criteria for the evaluation of other signs:

"The articulation of BUILD is *iconic* as it shows the action of building a wall in a prototypical manner. This prototype is a *metonym* for the larger category that represents physical construction of all kinds. The general act of construction is a source domain for the abstract target domain – the *metaphorical* building of a relationship" (2000: 46).

Going further into the metaphorical usage of BUILD, Wilcox writes:

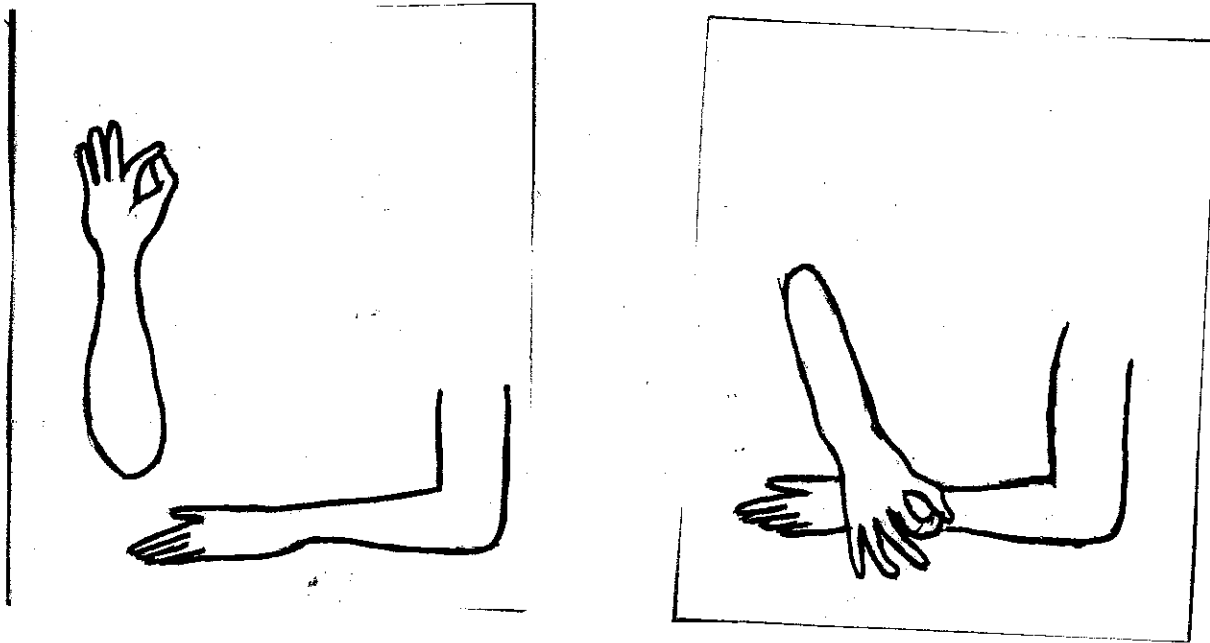


FIG. 14 WRISTWATCH

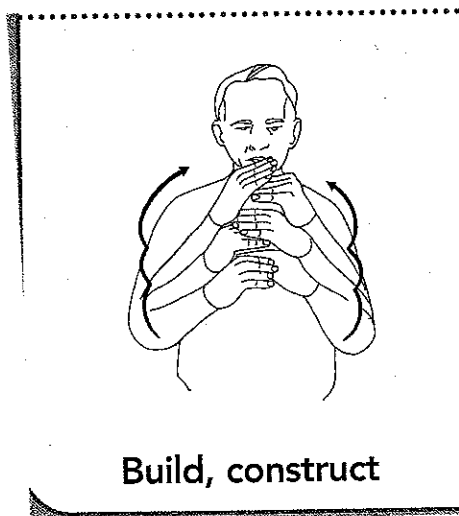


FIG. 15

sources: Milena Velis;
Signs of life, Gallaudet Press 2001

"Relationships, communications, trust, or any number of other abstract concepts can be 'constructed' through the use of the BUILD sign. When BUILD is used in this way, it becomes metaphorical, with two separate domains involved: (1) the source domain of physical construction and (2) the target domain of relationships... being 'built up'. *It is not inclusion at the symbolic representation level that constitutes justification of metaphor status. It is the juxtaposition of two separate conceptual domains*" (2000: 46, my emphasis).

Wilcox, who whole-heartedly adopts the Lakovian theory of conceptual metaphor, looks for an identifiable discreteness between source and target domains and also for a unidirectional (source-to-target) mapping between the two in deeming signs (in most cases, their usages or related concrete and abstract senses) as metaphorical (Wilcox, 2000). The claim of unidirectionality in all cross-conceptual-domain mappings, as discussed in §I.1, relies on the internally contradictory Invariance Principle. Yet Wilcox adopts this model without qualm, even arguing at certain points that the Invariance Principle can be upheld by her data. In analyzing her data Wilcox looks at the use of various classifier handshapes used in expressions about thought and ideas. These classifier handshapes are associated with specific types of objects and, more significant to her study, specific manners of manipulating those objects. She gives particular attention to the Flat-O morpheme, which appears in the citation form of GIVE and is a classifier handshape for smaller and flattish but easily graspable objects (a piece of paper or a small gift box, for example). Wilcox's consultants used this morpheme to "indicate that an idea can be moved metaphorically to the top or to the bottom of a list, or placed on another list altogether" (2000: 116). Wilcox then states, "Through the use of this morpheme, as much schematic structure of the source domain is mapped as is consistent with the intended preservation of the target domain. Thus, the Invariance Hypothesis... finds support from the ASL data" (2000: 116). Generally, the iconicity of the forms of ASL signs suggests that the concrete domain elements (objects, for example) are clearly the vehicles through which the more abstract domain elements (thoughts) are framed and accessed. This, however, does not answer the question of how the structure of the abstract elements is preserved or accurately metaphorically represented in the absence of some at least pre-linguistic conceptual awareness of said structure (the existence of which CMT can be seen as denying, as it argues that abstract domains *get* their meaningful schematic structure from source domains) and so does not escape the criticisms raised against the Invariance Hypothesis. Wilcox's conclusion also overlooks the possibility of other alternatives – for example, of an abstract or more general schema underlying both the 'concrete' objects and the 'abstract' ideas. These theoretical oversights will be discussed in greater detail later in this section; criticism aside, Wilcox's work undoubtedly has brought clarity to the study of metaphor in ASL as well

as to my understanding of the subject. Her criteria for the evaluation of iconicity and metaphor will be the guiding light in the proceeding analysis.

Pauwels & Simon-Vandenberg: Domain and Image-Schematic Analyses of English Metaphorical Expressions for Linguistic Action

Pauwels and Simon-Vandenberg (1993) use Lakoff & Johnson's earlier work on conceptual metaphors to classify a host of English expressions having to do with linguistic action. Their study concentrates "on those metaphors which originate in the conceptual domain of 'body parts'" (Pauwels & Simon-Vandenberg, 1993: 331), specifically those body parts involved in the production (or perception) of speech. In the expressions they look at, body parts function as parts of the container(s), contents, and instruments used in the exertion of (communicative) force. In these expressions, then, the source domain(s) for various ways of talking (thinking) about linguistic and/or communicative behavior are the physical sources of such communication or interaction. According to Pauwels and Simon-Vandenberg, "...the body part domain only plays a secondary role in the metaphorization" of the majority of cases of the corpus examined, "either by providing a metonymic link, or by being the chief instrument in other kinds of interaction" (1993: 335). For example, one category of expressions grouped together by Pauwels & Simon-Vandenberg refers to the 'use of articulators' (1993: 334). This class includes *keep one's mouth shut* and *close-lipped*, which make use of metonymic reference, as well as *jaw* (as used to describe a type of linguistic action) and *go in one ear and out the other*, which are described here as metaphors. They eventually claim that image schemas, not body-part domains, are the *primary* force of metaphorization in these expressions. Throughout the article Pauwels & Simon-Vandenberg broadly term all of the expressions 'metaphors'.

In addition to analyzing the expressions in terms of donor (source) domains, Pauwels & Simon-Vandenberg refer to Johnson's image schemas in their explanations. The *path* schema, for example, "can explain a number of metaphors from various concrete donor domains" (1993: 346).¹³ This schema can, according to Pauwels & Simon-Vandenberg, interact with other schemas such as the *container* schema, as for example in *pick someone's brains* or *take the words out of someone's mouth*. These are instances of the concept of removal, which involves both a container and a movement out of the container (path).

¹³The image-schematic structure of the Path schema consists of a source, a goal, a sequence of locations in between, and often also directionality (Pauwels & Simon-Vandenberg, 1993).

Pauwels and Simon-Vandenberg also suggest that *control* is a basic schema that “operates both in its presence and its absence. It basically functions on the level of human interaction with the environment or with other human beings” (1993: 347). They argue that the *control* schema can at least partially account for a plethora of expressions dealing with linguistic action: *slip of the tongue*, *fumble*, *take the words out of someone’s mouth*, and *blow off steam*. The first two expressions mentioned reflect a speaker’s lack of control (perhaps also conceived of as dexterity) over articulation, the third reflects the taking away of someone else’s control over their own communication, and the last describes a process in which the speaker regains control by reestablishing a balance of pressure (Pauwels & Simon-Vandenberg 1993).

All of the expressions discussed here thus far have literal meanings that are physically basic, yet they are conventionally used to talk about the manner of various *linguistic* or communicative, *not* physical, actions. For Pauwels and Simon-Vandenberg, then, they are all metaphorical, at least roughly speaking, and can be analyzed using Lakoff and Johnson’s notions of image schemas and source and target domains. A variety of explanations of the semantic motivation of these expressions are plausible: common sense identification of donor domains, literary-analysis-type unpacking of the semantic associations between the physical experiences described upon a literal meaning and the more idiomatic messages typically intended, or systematic interactions between image schemas which are experientially basic and can be metaphorically extended to access abstract conceptual domains. Pauwels and Simon-Vandenberg prefer the Lakovian-inspired analysis, concluding, “On the whole, the image-schematic approach explains why a similarity is perceived between the donor domain and the LA [linguistic action] domain” (1993: 349).

1.2 My Analysis of Potentially Corresponding Expressions in ASL

Communication is an experience shared in all cultures; linguistic communication, therefore, is an experience shared in all cultures that have a language or languages. People communicate with each other. We have conversations. And we have conversations *about* those conversations. We tell each other stories, we talk about each other, and we have conventional, everyday expressions that we use in conversation when we relay previous conversations to others. One can easily expect to find these kinds of conventional, common expressions about expressions cross-linguistically and cross-culturally. Inspired by Pauwels’ and Simon-Vandenberg’s study discussed above, I started looking for cross-modal evidence of these expressions. Specifically, I hypothesized that if linguistic expressions about linguistic actions along the lines of

those studied by Pauwels & Simon-Vandenberghe existed in American Sign Language, a correspondingly high proportion of the source or 'donor' domains of these expressions would be the body parts and physical methods of articulation that are most salient to the experience of communication in ASL. Where *tongue, teeth, eat, bite, ear, throat* and many other vocally/aurally functioning body parts are source elements in typical English expressions such as 'tongue in cheek', 'lying through one's teeth', 'eat one's words', 'slip of the tongue', 'bite someone's head off', 'stick in one's throat', I anticipated that *hands, fingers, arms*, and other manually/visually functioning body parts and processes of perception would motivate expressions about linguistic action in ASL. In general, I expected that image schemas would be involved in a similar fashion, though the particular schemas at play might differ. While different expressions might instantiate different conceptual metaphors¹⁴, I expected these potential expressions to be analyzable in terms of image schemas and source and target domains. A demonstration that the same cognitive devices are at play in the creation, understanding, and entrenchment of such idioms in languages that are separated not only by culture but also by modality provides strong evidence of cognitive processes such as cross-conceptual-domain mappings and other operations of categorization and construal, while also offering accounts for motivated form-meaning pairings in language.

The data analyzed are typical sign-expressions in ASL that describe acts or types of communication. Some of the signs were elicited from native speakers or from ASL instructors. Only a few of the signs were observed in the context of a discourse situation. Of the ten signs examined, the signs for TALK-YOUR-EAR-OFF, CHEW-THE-FAT/CHAT, CLARK ORAL SCHOOL, PUSH-THE-HAND-ASIDE, and AH-UM-(stammering, fumbling for right word, filler words) could be analyzed at least partially in terms of donor domains specific to a manual/gestural language. As shall be discussed farther on, however, the application of this approach to ASL results in a rather restricted analysis, as does, perhaps, a classic CMT source/target mapping approach.

As I shall discuss in detail below, my very limited and informal investigation yielded several interesting and unexpected observations and potential directions for more in-depth research:

- (1) Both true '*idiomatic*' expressions as traditionally defined and clear examples of conventional *metaphorical expressions* are extremely rare in ASL. However, the language makes such use of iconicity and metaphor that it appears that literal meanings of many

¹⁴ As with the English expressions, some of which were explained by reference to *path*, while others were explained by reference to *container* or *control* image schemas, etc.

typical expressions are given iconically (this iconicity often being due to an underlying conceptual metaphor) and, therefore, that the intended meanings of most expressions *are* removed from what is literally expressed. This intuitive, interpretative step, while possibly as conventionalized as English speakers' quick processing of idioms or conventionalized metaphorical expressions, is importantly guided and facilitated by cross-domain conceptualizations iconically manifested in the form of many signs.

(2) Defining and analyzing metaphor, idiom, and other 'non-literal' tropes, both novel and conventional, is a more complex undertaking than Lakoff's theory sometimes suggests. Given my discovery of these intricacies in the structure of ASL, I conclude that we must use clearer definitions and analytical methodologies regarding conceptual 'metaphor' and other cognitive construal processes when working with any language.

Taking or Sending?

Traditionally, what makes an expression an idiom is that it has a compositional, literal meaning that is rejected in favor of a non-literal, figurative meaning. Furthermore, this rejection or reinterpretation is not a process a native or fluent speaker must consciously labor through every time the expression is heard, since the figurative reading is fixed and conventionalized in the lexicon. The English idiom that occurs in sentences like 'Shane took the words right out of my mouth' potentially has a literal reading in which words are physical objects residing in my mouth and that, at some point prior to my uttering the above statement, Shane came over to me and physically removed at least some of those words from my mouth, etc. A standard interpretation of a statement like 'Shane took the words right out of my mouth' would mean something more like Shane said what I was planning on saying before I had a chance to say it. Of course, the literal and the figurative meanings of the expression are not completely unrelated; presumably the literal reading also expresses the same end result of my not being able to use my words. Pauwels and Simon-Vandenberghe explain the situation by referencing Johnson's *container* and *path* schemas and by introducing their own *control* schema, as discussed above. The physically and experientially basic elements of the body (mouth) as a container, of objects going in and out of a container, and of the body having a certain amount of control over the objects it contains (as well as other integral elements of the *COMMUNICATION IS SENDING* conceptual metaphor) frame our notions of words as reified entities, of speech as having directionality, of not being able to express ourselves properly if these word-entities leave our mouths without our control.

The presentation of this English idiom ('take the words out of someone's mouth') and my 'neutral' rephrasing of it ('express what someone else was thinking and was going to express before they had the chance to express it (or finish expressing it)'),

elicited the sign in Fig. 16 as a corresponding expression in ASL. The meaning of the sign when used in the context of describing a conversation is 'to have the same idea/thought as someone', 'sending thoughts to each other' (Padden, personal communication). The sign could also be used to mean 'agree', but more likely only in reference to opinions or thoughts specific to a conversation (the sign for AGREE is different). The handshape of this two-handed sign is a baby-O that is flicked outward and opens to G. The location of the nondominant hand is reached out in front of the signer, indicating the other person involved in the discourse; the dominant hand is positioned at the ipsilateral side of the signer's forehead. The two hands are oriented towards each other. The movement is the secondary movement of the hands flicking open towards each other.

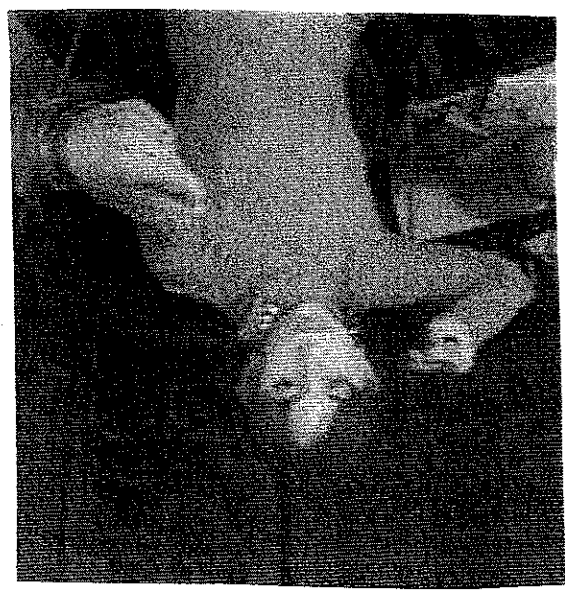
According to Wilcox, "the mappings that occur in ASL are not always identical to the mappings found in English" (2000: 101).¹⁵ She cites as an example the contrast between English expressions such as 'Are you lost?' and 'Are you with me?', which are instantiations of the *SPEECH EXCHANGE IS A SHARED JOURNEY* conceptual metaphor, and the ASL expressions OFF-THE-SUBJECT, BACK-UP, and LEAP-AHEAD, which are expressions of the *THOUGHT IS A JOURNEY* conceptual metaphor realized frequently in ASL. In ASL, asking a fellow conversant if they're 'lost' would be confusing, as those expressions relating to travel do not have a conventionalized metaphorical interpretation in ASL. The content of the conversation, rather than the agents having the conversation, is what moves along a path in this metaphorical conceptualization of communication. *THOUGHT IS A JOURNEY* is consistent with the superordinate conceptual metaphor *MENTAL STATES ARE LOCATIONS*. The spatial arrangement and locations of the sign HAVE-THE-SAME-THOUGHT-AS reflects this as well; these parameters in addition to the secondary movement and orientation support the status of the sign as an expression of the more specific *THOUGHT IS A JOURNEY* experiential metaphor. The structure of this sign demonstrates ideas traveling across the distance between the two signers.

Would the correspondences between the sign's parameters and its meaning more accurately be classified as *iconic*, using Wilcox's guidelines? Are 'thoughts' in the same domain as that which is usually associated with a G-handshape, when held at the forehead? Gee and Kegl have proposed that the long, straight figure of the G-handshape

¹⁵ For example, Irit Meir (in progress) examines how ASL uses all but one of Jackendoff's five *path* transformation schemas (in our terminology): the transformation-of-identity schema of *path*, manifested in English expressions like 'the light *went* from yellow to red'. In ASL, the sign BECOME is always used in these contexts ('the light was yellow and became red'); *path* is *not* metaphorically extended to transformations of identity. The other *path* transformations are found in ASL expressions, however (Padden, personal communication).

micro video, photograph

FIG. 16 HAVE-SAME-THOUGHT-AS-(SOMEONE)



represents thought, sight, and sound, conceived as “lines of thought” (or sight, or sound) (Wilcox, 2000: 47). As the handshape does resemble a line, this connotation is at least partially iconic. The connotation is further strengthened by the sign’s location, though the relationship between location and meaning, typical to many signs in ASL, is usually described as being metonymic. The mutual ‘sending’ implied by the orientation and secondary movement of both hands does seem to be iconically represented. Similarly, the forms of the handshapes match, symbolizing the alleged match between the thoughts of each person. The sign is also *metaphoric* in that it expresses the notion of two people having the same ideas (and possibly psychically sending them to each other, hence the resulting situation in which one person signs what the other is thinking) through a physical and spatial relationship of *sending matching objects* to each other. Ideas and objects are not in the same conceptual domain (prior to some mapping or blending, of course); nor are physical paths in space and telepathic connections in the same conceptual domain.

The meaning of the sign thus expresses a metaphorical conception of thought and communication that is further reflected in the iconic representations of the sign’s form. The G-handshape that is used is associated with objects of a certain kind (lines; long, straight things). The location of the dominant hand in the sign completes the interpretation of *thoughts* being the object in question. Both hands make the same handshape at the same time, to represent similarity between thoughts. The movement and orientation parameters demonstrate the action of sending and the direction in which the long, straight objects are being sent. These parameters collectively build what Taub would call a ‘transparently’ meaningful sign because they iconically represent thoughts being sent to and from two parties and *because we tend to think of communicated ideas in terms of sent objects*. The iconicity would not be iconic without the metaphor.

In many ways the sign HAVE-THE-SAME-THOUGHT-AS-SOMEONE is similar in the iconic structure of the sign I-INFORM-YOU that Taub analyzes (see §I.2). Taub argues that the sign I-INFORM-YOU also instantiates the metaphor *COMMUNICATION IS SENDING*. Her analysis suggests that the conventional meanings of many signs in ASL are achieved through their iconically-derived forms, which facilitate or instantiate metaphorical mappings. According to Taub’s Double Mapping Model, elements in the source domain are mapped *iconically* onto the structure (phonological parameters) of the sign and then *metaphorically* onto target domain elements that constitute the sign’s semantic information. This model seems to imply that the mappings are easily distinguished and does not fully spell out the link between them, however. When attempting to evaluate these signs as idiomatic or metaphoric, the

tangled nature of the interaction between the two mappings is somewhat revealed and unraveled.

Regarding the sign I-INFORM-YOU, we use the metaphorical source-to-target – domain mapping to *reject* the iconically given meaning of ‘I take an object out of my head and throw it at you’. Instead we adopt the more abstract ‘I inform you’. As the standard meaning of this expression is a step away from that which is directly given in the statement, it appears to be a plausible idiom. This classification does not quite fit, however, because it seems as though the conventions of ASL are such that the iconic representations in the form do not give a literal or exact meaning, but rather *supply us with the source domain elements that indicate the more abstract meaning*. In other words, an ASL signer would not interpret I-INFORM-YOU as ‘I take an object out of my head and throw it at you’; this interpretation would never occur to the language user as something to reject in favor of a more figurative usage.

The case of HAVE-THE-SAME-THOUGHT-AS-(SOMEONE) is similar. The iconically-given meaning is ‘we send/ flick the same object (from our heads) across space to each other(‘s heads)’, yet the typical understanding of the sign is ‘we send idea(s) to each other; our thought(s) is the same’. There may be a slightly additional level of figurativeness at play depending on whether or not signers actually a) understand the sign “literally” as ‘we send ideas to each other’ *and also* b) intend (and understand) the typical meaning of the sign to be ‘we must’ve been communicating telepathically, since she said what I was thinking’. Even given this possible extra level of interpretation involved with the second sign, these signs do not appear to be idiomatic, but rather motivated by *an underlying conceptual metaphor* that is responsible *both for the iconicity of their form and for the conventional interpretation that takes the notions of the iconically represented forms and maps them onto more abstract notions*. Accepting Wilcox’s distinctions, the sign HAVE-THE-SAME-THOUGHT-AS-(SOMEONE) is most accurately described as iconic and metaphoric (where the iconicity is based on the metaphor) but not idiomatic.

Biting & Pushing

Two other expressions analyzed by Pauwels and Simon-Vandenberg (1993) are ‘bite one’s tongue’ and ‘slip of the tongue’. According to their explanations, the *control* schema can account for these expressions, as can the use of a direct donor domain of physical articulator. Yet while these expressions do not quite mean what they directly say, exactly, it is interesting to note the conceptual closeness between their literal and figurative readings (as contrasted with, say, “true” idioms like ‘kick the bucket’, or metaphorical expressions like ‘our marriage is on the rocks’). English speakers

generally assume that the standard intended meaning of a statement like 'Realizing what she was saying, Jane bit her tongue and looked away' is not that Jane actually chomped down on her tongue in order to stop speaking. Rather, it is intended and understood that she abruptly or self-chidingly restrained herself from speaking further (without causing any actual harm to her tongue), and so it could be argued that only one conceptual domain is being discussed in both cases. 'Tongue' may be a source domain element that maps metonymically onto the action of speaking, such that 'biting one's tongue' amounts to 'ceasing to talk', yet this action is one that the tongue itself is involved in performing. The force of biting *is* perhaps metaphorically mapped onto the idea of self-restraint. Yet as the example given here demonstrates, a certain context is required to assure that the less-literal interpretation will be understood; the 'juxtaposed' domains, if there even are indeed two separate domains to juxtapose, are not very 'distant'. 'Slip of the tongue' seems even more to merely be a metonymic yet fairly straightforward description of what is physically taking place when a mistake is made in the production of speech; it seems funny, in this instance at least, to say that the physical act of making the mistake and the mistake itself are in two separate domains.¹⁶

I call into question the metaphorical status of these English idioms partly due to the fact that they seem to be poor examples of Wilcox's idea of metaphor and partly due to the nature of the corresponding expressions in ASL. If one makes a mistake or has a false start when signing, one might PUSH-THE-HAND-ASIDE by, simply, using the nondominant hand (or the hand not just previously signing) to push aside the dominant (previously and erroneously signing) hand. This gesture may seem to be more of a discourse device than a proper lexical item, yet it was cited by Carol Padden (personal communication) as a probable equivalent to English expressions like 'slip of the tongue' or 'to bite one's tongue'. What is most interesting about this sign is that its donor domain, to borrow the language of Pauwels & Simon-Vandenberg, is clearly the physical articulator, the hand. The gesture is iconic; the pushing aside of the hand demonstrates visually that the signer is stopping and chastising the specific erroneous act of signing, establishing a disconnect between the mistake and what is about to be signed afresh. There is no metaphor here, however, not even a little one: the hand that is being pushed aside *is* the hand that made the error and *is* the hand that will continue signing and communicating. More precisely, because the language is gestural and visual,

¹⁶ This analysis depends also upon how related the meanings of 'slip' are taken to be; certain mononymic theories of lexical relations based on image-schematic extensions could imply an iconic rather than a metaphorical process in the sign here discussed. Such a variant analysis would be more plausible given a structural similarity, or generally schematic, picture of metaphor such as that put forth by John Taylor et al. (see §I).

to stop the hand's motion is to stop the flow of language. Unlike in the case of 'bite one's tongue', it is necessary to stop the hand and to indicate that what was previously signed is to be forgotten and distinguished from what is about to be signed in a way that the act of biting one's tongue to cut off one's offensive diatribe mid-sentence is not. The interruption and the distinction are both accomplished *in the act of gesturing* PUSH-THE-HAND-ASIDE. Relatedly, the gesture is not idiomatic, even though it is a conventional expression used frequently and thoughtlessly in ASL discourse; there is no further figurative meaning to be favored over a literal one.

In One Ear?

As Wilcox predicts when reviewing her own data, "the literal translation of English idioms or phrases into sign" can be seen as "...natural interaction to be expected," given the constant contact ASL signers have with the English language (Wilcox, 2000: 60). ASL does have a sign for IN-ONE-EAR-OUT-THE-OTHER (Fig. 17), an expression used idiomatically as in English to mean something like 'not listening; not paying attention; not absorbing received information' etc. Ears are used as the source element corresponding to the notion of receiving (and registering) information, even though this isn't the most salient or basic experience of receiving and registering communicated information for deaf people. Yet this disparity seems to make the sign's meaning all the more idiomatic, as it is all the more natural to reject the literal meaning in favor of a figurative one. Furthermore, this figurative meaning is related to the literal one via an iconic-metonymic relationship.

Many of the sign's parameters are iconically motivated. The handshape is a G configuration, which, as seen above, potentially represents thought, sight, and sound, metaphorically conceived as "lines of thought" (or sight, or sound) (Wilcox, 2000: 47). The movement clearly shows one line or stream of sound/information going into one ear (one hand gestures from an X-handshape to a G-handshape for emphasis, demonstrating that the information is going in the ear it points to) and comes out - unaltered, unprocessed, same handshape - the other ear. Indeed, in this sign, the parameters represent nearly to the point of imitation, rather than iconic resemblance, the kind of event that the sign IN-ONE-EAR-AND-OUT-THE-OTHER literally describes as happening.

As one might predict given this closeness between literal meaning and formal representation, this expression, whether in English or in ASL, doesn't really fit with any established conceptual metaphors, such as *KNOWING/UNDERSTANDING IS SEEING*. The connection between the iconic parameters and the meaning can be almost entirely accounted for by metonymy: the ears stand for receivers of information (and,

FIG. 17

(N-ONE-EAR-
OUT-THE-OTHER



Photography by
Mélina Velis

particularly in the English expression, for the complex process of hearing); the head through which the information passes unmediated stands for the brain, which is not acting upon this information since the receiver in question is not paying attention. Again, we have the reification of words or communicated information as objects that travel through space; in the ASL sign, however, the classifier handshape may not be indicating objects so much as *lines of thought* that are traveling. While in both ASL and in English the expression can be said to be idiomatic (slightly, at least), since the most literal reading is not usually intended, 'in one ear and out the other' is not a strong example of a conceptual metaphor, as defined as the juxtaposition of two separate conceptual domains.

2. Conclusion: Remarks and Ruminations on the Data

My exploration of this handful of ASL expressions is obviously not enough to support any large-scale pronouncement about the way that iconicity, metaphor, metonymy or other tropes function in the language. Calling upon the more in-depth and systematic works of others, however, in addition to my findings and experiences in doing this research and looking at this data, I do feel in a position to offer a few observations.

(1) As I began to anticipate would be the case, given the focus that most of my sources placed on the *structure of just one sign* when discussing metaphor in ASL, *metaphorical expressions* of the kind that we are used to in English are not found to the same extent or as the same phenomenon as in English (or other spoken languages that Lakoff and Johnson and other cognitive linguists have looked at). In particular, conventional metaphorical expressions (e.g. 'things are looking up') as well as idiomatic expressions (e.g. 'kick the bucket') are extremely rare in ASL. TRAIN-GO-SORRY, which is the ASL equivalent of English's 'miss the boat', is the best and pretty much only example offered in either the sources I've read or the conversations that I've had on this matter with both hearing and deaf linguists. In a language that can specifically pick out the subject and the object of its verb all in one smooth gesture (e.g. GIVE), it is perhaps to be expected that efficiency at expressing intended meaning rules out a certain amount of reliance on figurative devices to convey semantic information. Furthermore, the powerfully productive ability to change the meaning of a sign by varying semantically valued parameters establishes a paradigm for creativity in which novel, figurative constructions (such as metaphors or conceptual blends) are as easily and efficiently built

and understood as are literal ones. This paradigm does not leave much room for conventionalized or 'dead' metaphors, which often take on an idiomatic status.¹⁷

On the other hand, of course, most "true" English idioms such as 'spill the beans' or 'kick the bucket', are at best marginal instances of established conceptual metaphors (Taylor 2002). This implies that idioms were once motivated by less productive cross-domain mappings; the prevalence of lexical families and extended semantic relations between signs in ASL potentially precludes any significant presence of expressions that are dead, unproductive, *and* unrelated.¹⁸ Also, as noted above, even easily conveyed 'literal' expressions, such as GIVE, rely on iconic schematic *similarities* between form and meaning and thus do not *actually* pick out the referents in question without some degree of representation. And it is crucial to remember that CMT's primary claim is of the cross-domain structuring of *concepts*; the varying ways (metaphorical expressions or morphological structure) in which languages code and convey these conceptualizations does not disprove the theory. As we have seen, ASL achieves linguistic manifestation of the cognitive mappings more directly than does English, in the morpho-phonemic forms of the signs themselves, as well as in novel constructions achieved via the manipulation of existing forms.

Having observed these characteristics, it is most important to note that (a) systematic iconicity that selects and schematizes salient experiential (typically sensory and/or spatial) information is largely responsible for the rich yet condensed expressive power of ASL's morpho-phonemic structure and (b) metaphorical (cross-domain, or concrete-to-abstract) mappings frequently offer an explanatory basis for the transparent and productive conceptual connections between a sign's iconic structure and its meaning; these mappings make the iconicity meaningful.

¹⁷ The more creative or novel process of achieving new meaning in various context situations by alternating parameters, particularly location, as demonstrated in the blends discussed by Wilcox and Liddell needs to be kept distinct from the language's characteristic tendency to have lexical families that vary by parameter, as described by Fernald and Napoli. A middle ground also should be recognized, however, in which certain idiom-esque expressions that may be derived from other, more basic ones by parameter variation are conventionalized and in the lexicon (Padden, personal communication). More research into these types of expressions is clearly needed before any conclusive statements can be made; this middle ground did seem to characterize the expressions I looked at, at least in the minds of the ASL signers with whom I discussed them.

¹⁸ Furthermore, as Liddell's (2003) recent discussions of ASL morphology, in which he questions the status of inflectional processes in ASL, suggest, the idea of a literal or stable citation form of a sign in ASL is not terribly useful in the face of the language's tendency towards treating morpho-phonemic parameters as underspecified schematic structures that transparently and formally take on meaning in the context of a particular usage.

(2) The intricacies of analyzing the semantic contributions of each parameter in a given sign, of separating iconicity from metaphor, metaphor from metonymy, similarity from replication, motivation from coincidence – the intricacies of analyzing the presence and operation of conceptual metaphors in ASL should inspire us to look with a more delicately discerning eye at these processes in English and other spoken languages. Iconicity does complicate the matter in ASL; as Wilcox writes of the interaction between metaphor and iconicity: “the mapping...reveals not only the iconicity prevalent in spoken languages... but also the use of handshape icons (and their corresponding movements and locations) that add their own visual images to the linguistic spectrum” (2000: 69). Yet all of these writers (Wilcox, Taub, Liddell) cite in their work many examples of iconicity in spoken languages, to say nothing of the amount of work done by linguists who focus on English or other spoken languages (see Waugh, 1993, in particular).

Furthermore, while inspired by the need to separate iconicity from metaphor, Wilcox’s criterion of the juxtaposition of two discrete domains (which is, in essence, a clear restatement of Lakoff and Johnson’s basic notion) has already been used here to question Pauwels’ and Simon-Vandenberg’s (1993) vague grouping of the majority of their figurative expressions of linguistic action as metaphors. As we have seen, many of the expressions that Pauwels and Simon Vandenberg classify come closer to being idioms than expressions that are motivated by a *productive* underlying *cross-domain* conceptualization and that come complete with sets of ontological and epistemic correspondences that structure a network of related expressions (as in the case of conceptual metaphors). More work is needed to clarify the possibility of a continuum of the presence of cross-conceptual-domain mappings in linguistic expressions.

Indeed, Wilcox’s highlighting of the conceptual distance required to provoke a metaphoric mapping in the first place might be used to critique the status of some of Lakoff and Johnson’s typical examples, or perhaps at least to call for some *clearly* established hierarchy denoting degrees of metaphoricity. For example, the treatment of ideas or thoughts as objects is so prevalent in ASL (and in English) that one may wonder at the point of classifying them in two separate conceptual domains. Who put them there to begin with? Is the schematic structure of an idea filled in by the schematic structure of an object, or do we rather find analogous experiences in dealing with ideas and with objects and so abstract from schematic *similarities* between the two when using the metaphorical expressions that we use?

These are questions that many Cognitive linguists have directed at conceptual metaphor theory since the 1980s. The model put forth by Lakoff and Johnson has gone

very far in analyzing the phenomena in ASL examined here; it is integral to both of Taub's models and to Wilcox's work. Yet other Cognitive linguistic ideas of metaphor do not seem to be as frequently adopted by linguists studying ASL. As evidenced by Wilcox's seeming lack of concern over the ambiguity of Lakoff & Johnson's Invariance Principle, this preference of (Lakoff and Johnson's) model means that analyses of conceptual metaphor in ASL inherit these same confusions, even as they pave the way towards clarification. Liddell's work on the spatial nature of ASL grammar incorporates Fauconnier's mental space theory, and Wilcox's more recent article on metaphor in ASL carefully details instances of conceptual integration, or blending, in ASL. Both of these theories use or refer to CMT, as discussed in §I.1, yet they offer much more nuanced and dynamic explanatory capabilities.

Having reviewed the application of these cognitive semantic theories to ASL in §I.2, and having observed in this discussion the complications that even a simplified version of Lakoff and Johnson's model must overcome to achieve a clear analysis, I would like to emphasize, in a very preliminary closing, the promise of the alternative Cognitive linguistic notions of metaphor presented by Langacker, Taylor, Croft & Cruse and others. These approaches may, if adopted by linguists working with ASL, refine and improve upon the foundational idea of language as motivated and informed by the interaction of cognitive structures and domains. There is reason to believe that the more holistic and integrated models of metaphor discussed at the end of §I.1 may do a better job of handling the complex, multi-dimensional semantic processes in ASL than models that seek to reduce the structure-and-meaning relationship in signs to a unidirectional mapping of a concrete conceptual domain onto an abstract one. Wilcox's and Liddell's recent works demonstrate the start of more intricate and perhaps more faithful analyses made possible by developments to CMT such as Blending Theory. Specific areas for further inquiry that I have hopefully pointed to include: the viability of a theory of conceptual metaphor that places more emphasis on schematic similarities between domains; a position regarding the level at which schematic structure becomes independently 'meaningful'; dynamic construal processes as primary cognitive operations underlying more specific processes; how languages reflect these schemas and operations in their form and structure as well as in the 'semantic values' of their conventional expressions; how meaning emerges from cognitive as well as pragmatic contexts.

I believe that a key component in opening up many of these possibilities is the elusive notion of *image schema* studied in conjunction with the semantic potential of the morpho-phonemic parameters of signs in ASL. Cognitive-topographical investigations

into ASL 'prepositions' might prove enlightening in this respect. If I am indeed correct in positing two distinct operational levels of conceptual metaphor in ASL, one that structures the conventional signs by motivating iconic representations of source elements at the level of parameters, and another process that underlies a variation or extension of an established meaning through the alteration of a (standard, citation) parameter in a given context, then perhaps an investigation of image schemas at play at both levels can help us to answer the more basic, and still unresolved, question of their cognitive status in general. As Wilcox explains their role at the 'second' level, "the image schemas of classifiers found in the source domain regularly map onto distinct aspects of the target domain" (2000: 111). In turn, the here-named 'alternative' Cognitive linguists' treatments of image schemas as ubiquitous cognitive structures available for a variety of meaning-constructing processes may offer new answers to the question of how to best classify and analyze classifiers and other semantically-valued parameters that combine productively in ASL morphology. The only thing we risk in opening up the fundamental structures of either Conceptual Metaphor Theory or ASL linguistics to more questioning is more clarity.

Bibliography

- The Body in The Mind*. Johnson. Chicago: University of Chicago, 1987.
- Brugman, Claudia. *Story of OVER*. Outstanding Dissertations in Linguistics. New York: Garland Press, 1988.
- "Cognitive Grammar." Langacker. in *Concise History of the Language Sciences: From the Sumerians to the Cognitivists*. Koerner, E.F.K. ed. NY: Elsevier Science Ltd, 1995.
- "A cognitive key: Metonymic and metaphorical mappings in ASL." Wilcox, Phyllis Perrin. *Cognitive Linguistics*. Vol 15.2, 2004.
- "Cognitive Semantics." Lakoff. *Meaning and Mental Representations*. Indiana University Press, 1988.
- "Conceptualization, Symbolization, and Grammar." Langacker. In *The New Psychology of Language*. Tomasello, Michael, ed. NJ: Lawrence Erlbaum Associates, Inc, 1998.
- "The contemporary theory of metaphor." Lakoff. in *Metaphor and Thought*. 2nd ed. Ortony, Andrew, ed. Cambridge: Cambridge University Press, 1993.

- Croft and Cruse. *Cognitive Linguistics*. Cambridge: Cambridge University Press, 2004.
- Emmorey, Karen. *Language, Cognition, and the Brain: Insights from Signed Languages*. NJ: Lawrence Erlbaum Associates, 2002.
- "Exploitation of morphological possibilities in signed languages." Fernald, Theodore B. & Napoli, Donna Jo. In *Sign Languages and Linguistics* 3:1, 2000.
- "An image-schematic constraint on metaphor." Turner, Mark. in *Conceptualizations and Mental Processing in Language*. Geiger and Rudzka-Ostyn, eds. Berlin: Mouton de Gruyter, 1993.
- Lakoff & Johnson. *Philosophy in the Flesh*. NY: Basic Books, 1999.
- Liddell, Scott. *Grammar, Gesture, and Meaning in ASL*. Cambridge: Cambridge University Press, 2003.
- Taub, Sarah. *Language from the Body: Iconicity and Metaphor in ASL*. Cambridge: Cambridge University Press, 2001.
- "Value judgment in the metaphorization of linguistic action." Pauwels, Paul & Simon Vandenberghe, Anne-Marie. in *Conceptualizations and Mental Processing in Language*. Geiger & Rudzka-Ostyn, eds. Berlin: Mouton de Gruyter, 1993.
- "Why Many Concepts Are Metaphorical." Gibbs, Raymond. *Cognition*. Vol 61, 1996.
- Wilcox, Phyllis Perrin. *Metaphor in American Sign Language*. Washington, D.C.: Gallaudet University Press, 2000.
- Valli, Clayton & Lucas, Ceil. *Linguistics of American Sign Language: An Introduction*. Washington, D.C.: Gallaudet University Press, 2000.